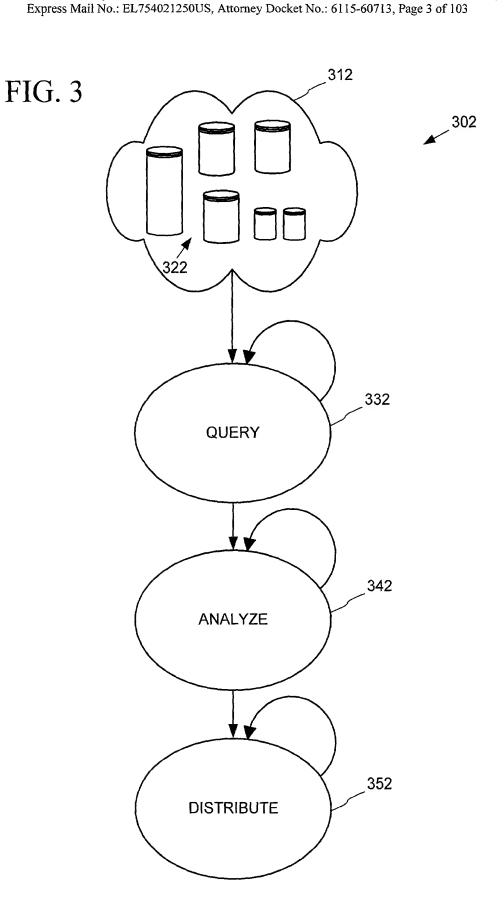
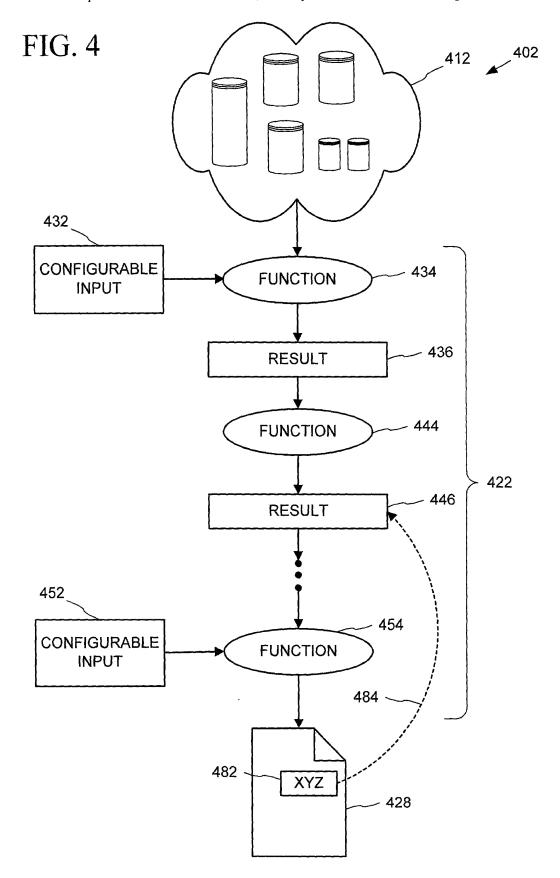


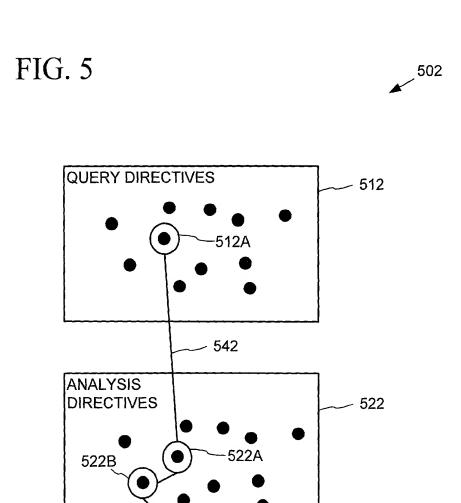
Gregory L. Maurer, Esq., Klarquist Sparkman, LLP, 121 S.W. Salmon Street, Suite 1600, Portland, Oregon 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING EXECUTABLE SEQUENCES TO PROCESS INFORMATION FROM A DATA COLLECTION,

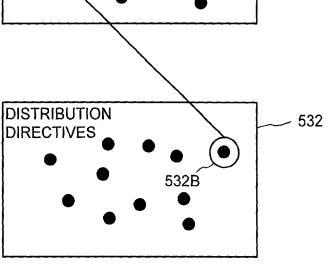


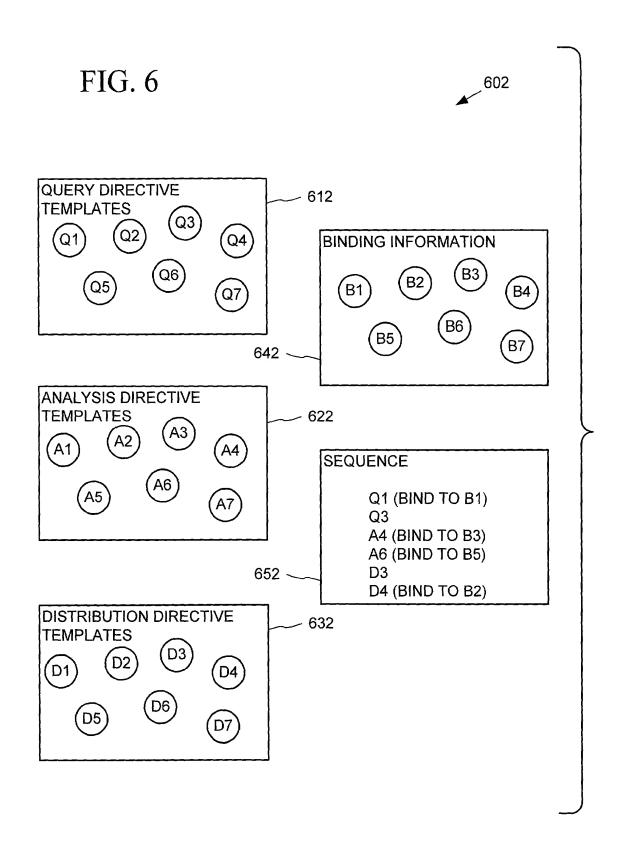


Gregory L. Maurer, Esq., Klarquist Sparkman, LLP, 121 S.W. Salmon Street, Suite 1600, Portland, Oregon 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING EXECUTABLE SEQUENCES TO PROCESS INFORMATION FROM A DATA COLLECTION, Express Mail No.: EL754021250US, Attorney Docket No.: 6115-60713, Page 4 of 103

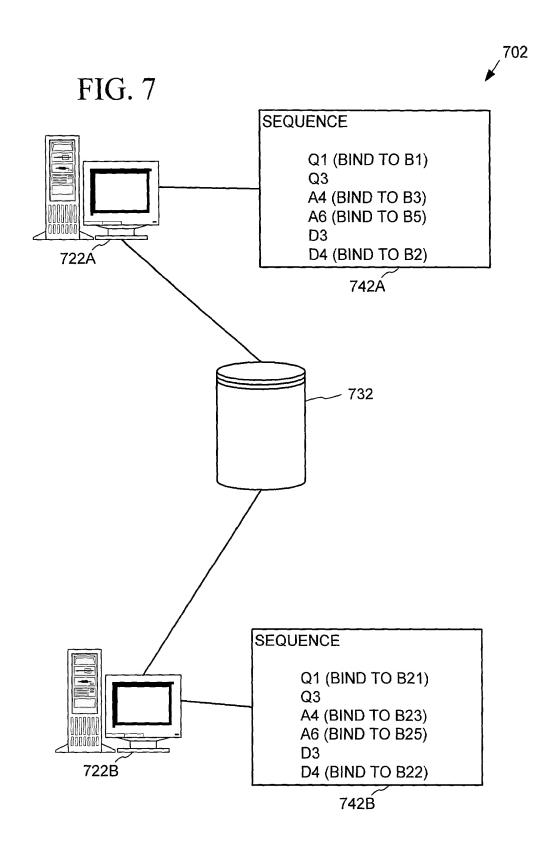


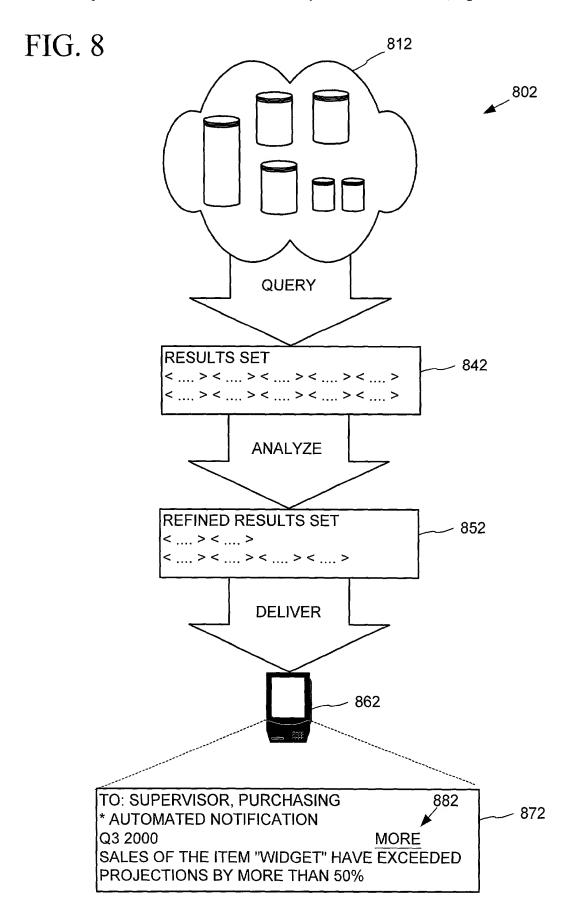


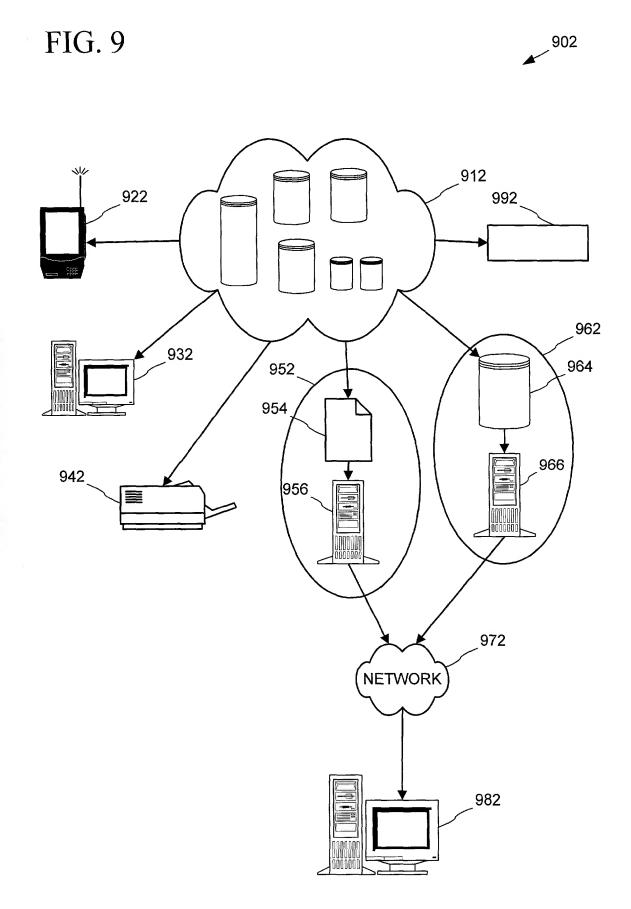


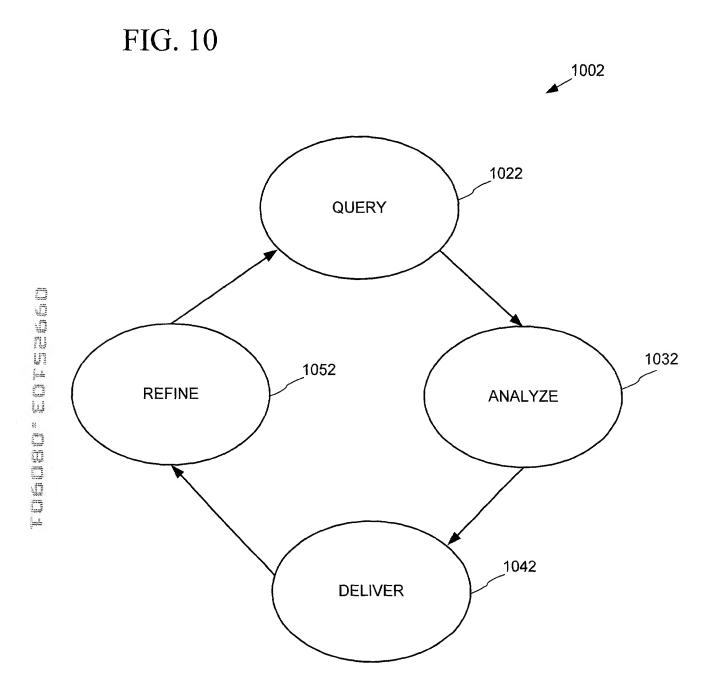


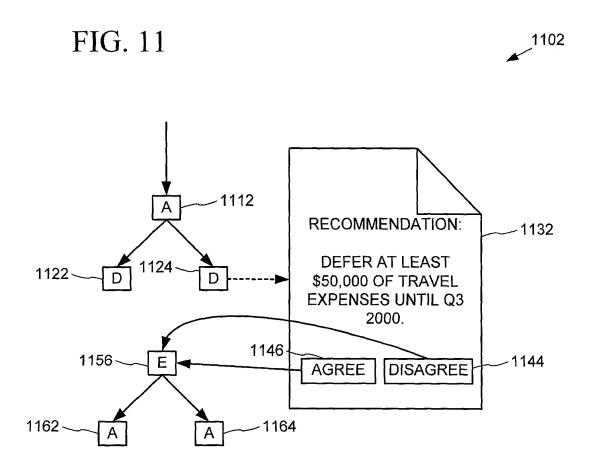
Gregory L. Maurer, Esq., Klarquist Sparkman, LLP, 121 S.W. Salmon Street, Suite 1600, Portland, Oregon 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING EXECUTABLE SEQUENCES TO PROCESS INFORMATION FROM A DATA COLLECTION, Express Mail No.: EL754021250US, Attorney Docket No.: 6115-60713, Page 7 of 103

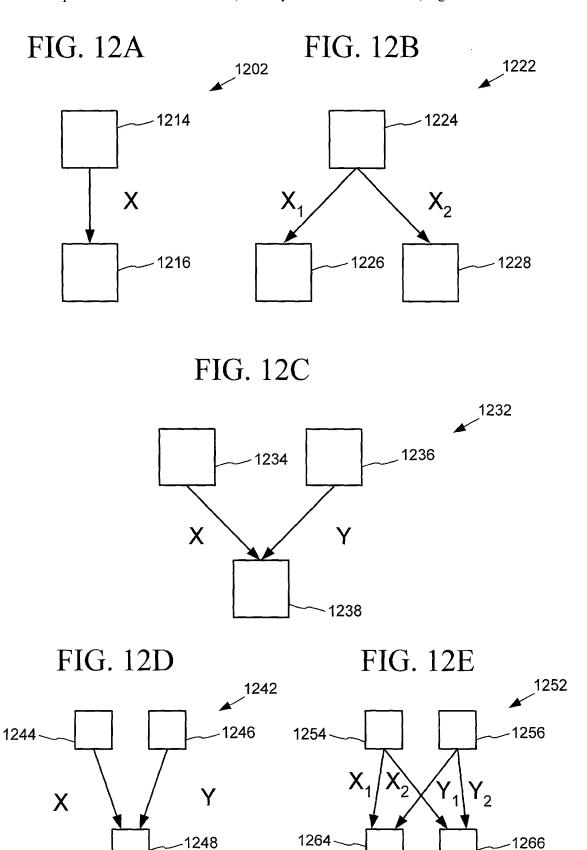












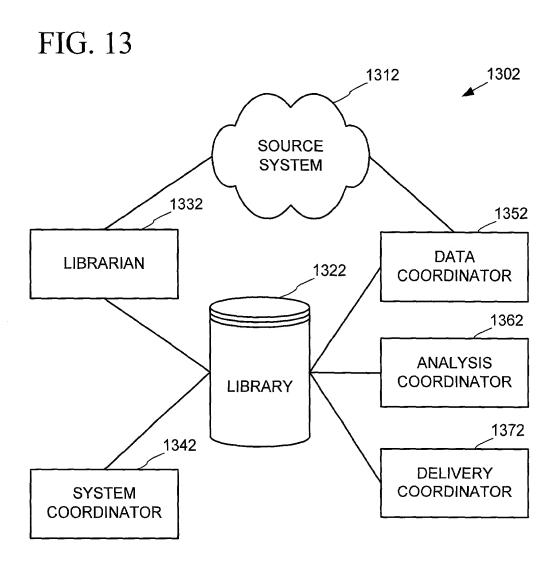
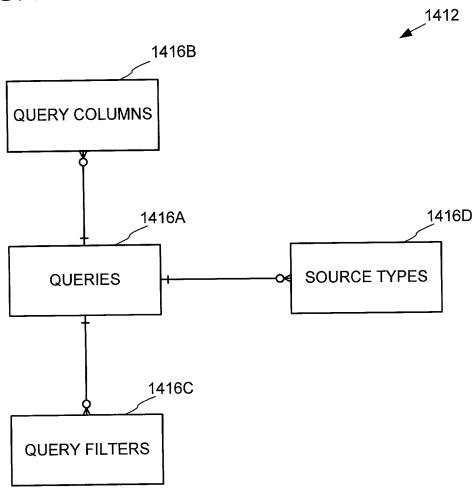


FIG. 14A



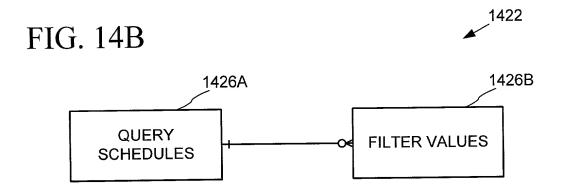


FIG. 14C

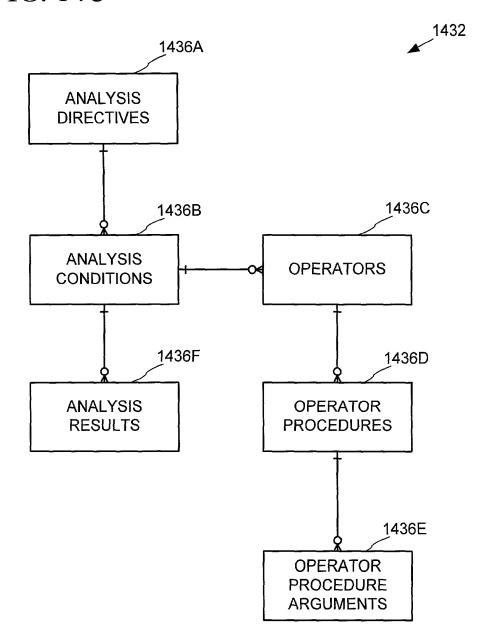


FIG. 14D

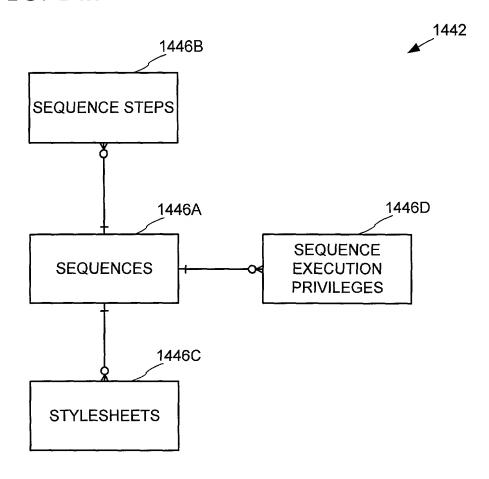


FIG. 14E

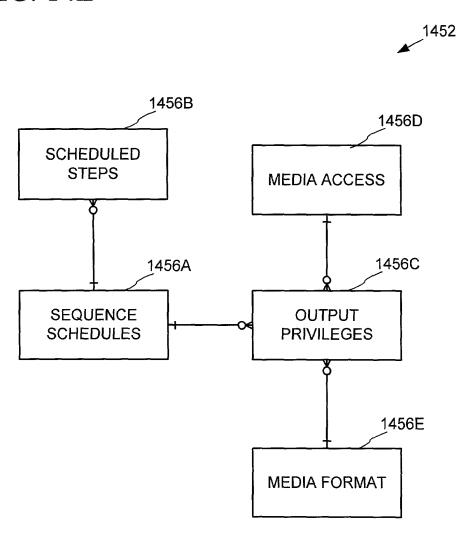
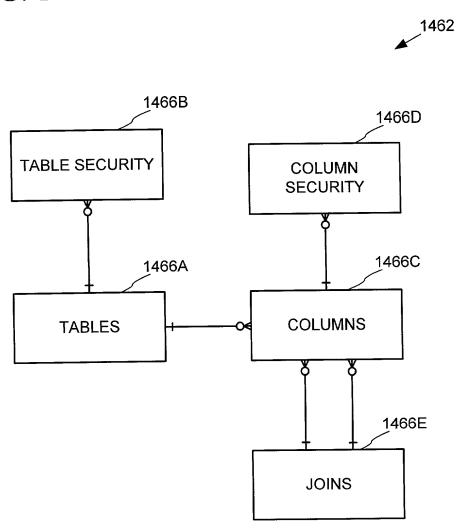
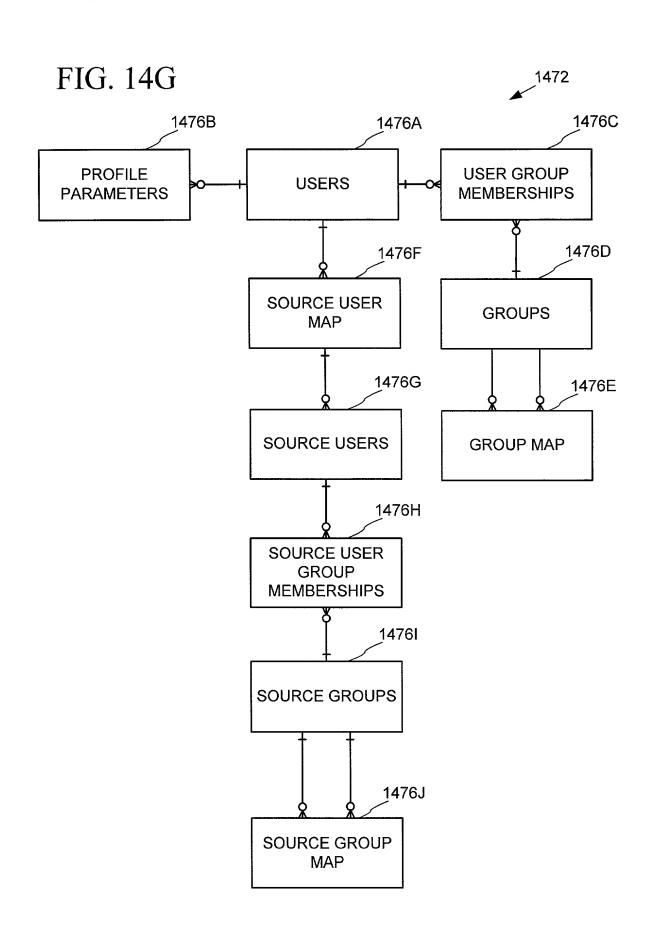
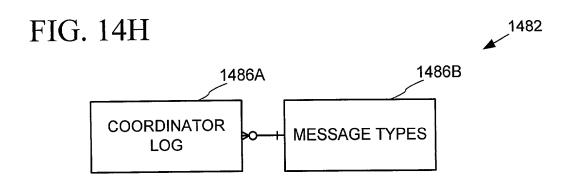


FIG. 14F





Gregory L. Maurer, Esq., Klarquist Sparkman, LLP, 121 S.W. Salmon Street, Suite 1600, Portland, Oregon 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING EXECUTABLE SEQUENCES TO PROCESS INFORMATION FROM A DATA COLLECTION, Express Mail No.: EL754021250US, Attorney Docket No.: 6115-60713, Page 20 of 103



	O	QUERY DIRECTIVES	S	
NAME	DESC	SOURCE US	USER STATUS	OPTION
NEW	NEW	SYSTEM A ▼ NB	3 AVAILABLE ▼	ADD
CC1	COST CENTER	SYSTEM A EH	H AVAILABLE ▼	MOD
AR-PTD	PERIOD TO DATE SYSTEM B	SYSTEM B LS	AVAILABLE ▼	MOD
REV	PTD REVENUE	SYSTEM B LS	AVAILABLE ▼	MOD
N.	FINANCIALS	SYSTEM B LS	AVAILABLE ▼	MOD
SALES	SALES BY DEPT	SYSTEM B LS	AVAILABLE	MOD

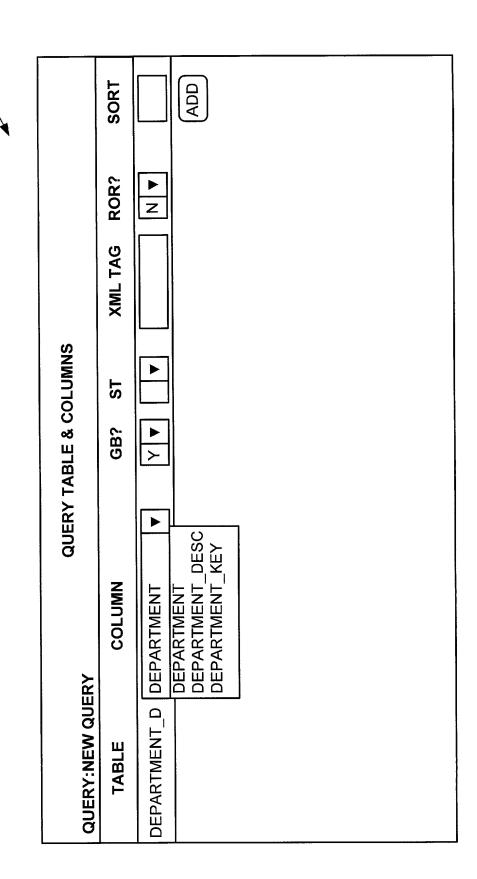
Express Mail No.: EL754021250US, Attorney Docket No.: 6115-60713, Page 21 of 103

Gregory L. Maurer, Esq., Klarquist Sparkman, LLP, 121 S.W. Salmon Street, Suite 1600, Portland, Oregon 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 1704, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 1704, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 1704, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 1704, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 1704, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 1704, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 1704, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 1704, (503) 226-7391, Inventors: SCHEURICH ET AL., TITLE: SYSTEMS AND METHODS FOR DEFINING 1704, (503) 226-7391, Inventors: SCHEURICH ET AL., TITLE: SYSTEMS AND METHODS FOR DEFINING 1704, (503) 226-7391, Inventors: SCHEURICH ET AL., TITLE: SYSTEMS AND METHODS FOR DEFINING 1704, (503) 226-7391, Inventors: SCHEURICH ET AL., TITLE: SYSTEMS AND METHODS FOR DEFINING 1704, (503) 226-7391, Inventors: SCHEURICH ET AL., TITLE: SYSTEMS AND METHODS FOR DEFINING 1704, (503) 226-7391, Inventors: SCHEURICH ET AL., TITLE: SCHEURICH

FIG. 15B

		QUERY TABLE & COLUMNS	LE & COI	UMNS			
QUERY:NEW QUERY							
TABLE		COLUMN GB?	ST	XML TAG	ROR?	SORT	
ACCOUNTING_DATE_D		SELECT COLUMN					
AR_RCT_REV_RESN_D AR_RECPT_STATUS_D	■						
AR_REVENUE_F							
AR_SCH_FMI_DIL_F AR_SHIP_VIA_D							
AR_SOLD_TO_CUST_D ASSET_BOOK_D							
ASSET_EMPLOYEE_D							
ASSEL_INVENIORY_F ASSET_TYPE_D							
AUTHORIZER_D							
]						

FIG. 15C



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EXECUTABLE SEQUENCES TO PROCESS INFORMATION FROM A DATA COLLECTION, 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Systems 97204, (503) 226-7391, Inventors:

QUE	RY TAE	QUERY TABLE & COLUMNS	MNS		
QUERY:NEW QUERY					
	COLUMN	GB? ST	TAG XML TAG	ROR?	SORT
	DEPARTMENT_DESC	>	DEPARTMENT	Z	7
	AF	ADD COLUMN DONE			

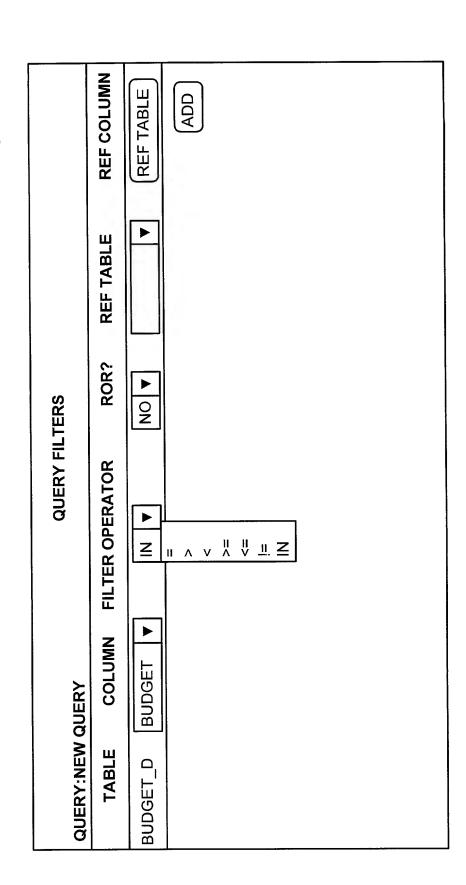
Express Mail No.: EL754021250US, Attorney Docket No.: 6115-60713, Page 24 of 103

Gregory L. Maurer, Esq., Klarquist Sparkman, LLP, 121 S.W. Salmon Street, Suite 1600, Portland, Oregon 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING PACUTABLE SEQUENCES TO PROCESS INFORMATION FROM A DATA COLLECTION,

FIG. 15E

OHEDV:NEW OHEDV	QUERY TABLE & COLUMNS	SLE & C	OLUMN	<u>&</u>		
TABLE	COLUMN	GB?	ST	XML TAG	ROR?	SORT
DEPARTMENT_D	DEPARTMENT_DESC	>		DEPARTMENT	Z	_
INC_STMT_LINES_D	LINE_NAME_	\		LINE_NAME	Z	
INCOME_STMT_A	PTD_ACTUAL	z	SUM	PTD_ACTUAL	Z	
INCOME_STMT_A	PTD_BUDGET	z	SUM	PTD_BUDGET	Z	
INCOME_STMT_A	PTD_VARIANCE	z	SUM	PTD_VARIANCE N	Z	
	(₹)	ADD COLUMN DONE	UMN			

FIG. 15F



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Gregory L. Maurer, Esq., Klarquist Sparkman, LLP, 121 S.W. Salmon Street, Suite 1600, Portland, Oregon 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 1704, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 1704, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 1704, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 1704, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 1704, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 1704, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 1704, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 1704, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 1704, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 1704, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 1704, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 1704, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 1704, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 1704, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 1704, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 1704, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 1704, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 1704, (503) 226-7391, Inventors: Systems And Methods And

FIG. 15G

		QUERY FILTERS	TERS		
QUERY:NEW QUERY	ERY				
TABLE	COLUMN	FILTER OPERATOR	ROR?	REF TABLE	REF COLUMN
BUDGET_D	BUDGET	Z	z		
PERIOD_D	PERIOD	ii	Z		
DEPARTMENT_D DEPARTMENT	DEPARTM	ENT =	Z	DEPARTMENT_D DEPARTMENT_KEY	DEPARTMENT_KEY
		ADD FILTER FINISH			

FIG. 15H

>	OPTIONS	ADD	
W QUER			
TIVE: NE	LAST RUN DATE		
DIREC			
ANALYSIS SUBSEQUENCE 3SEQUENCE TO THE QUERY	RESULTS TYPE	SHOW	
ANALYSIS 7SIS SUBSEQUENC	USER NAME	NB	
ANALYSIS SUBSEQUENCE YOU ARE TYING THIS ANALYSIS SUBSEQUENCE TO THE QUERY DIRECTIVE: NEW QUERY	ANALYSIS SUBS NAME	INCOME STMT ANALYSIS	
YOU ARE 1	ANALYSIS	INCOME S.	

Gregory L. Maurer, Esq., Klarquist Sparkman, LLP, 121 S.W. Salmon Street, Suite 1600, Portland, Oregon 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING PYDOA, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING PAPIES SEQUENCES TO PROCESS INFORMATION FROM A DATA COLLECTION, Express Mail No.: EL754021250US, Attorney Docket No.: 6115-60713, Page 28 of 103

FIG. 15I

1518

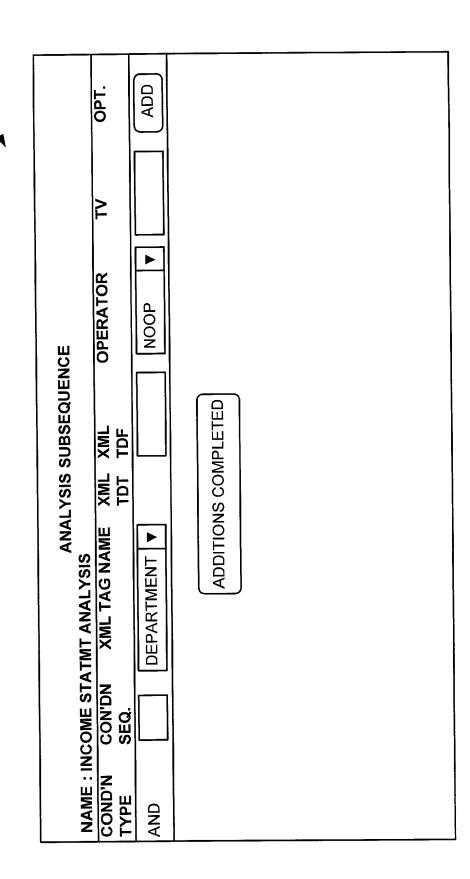
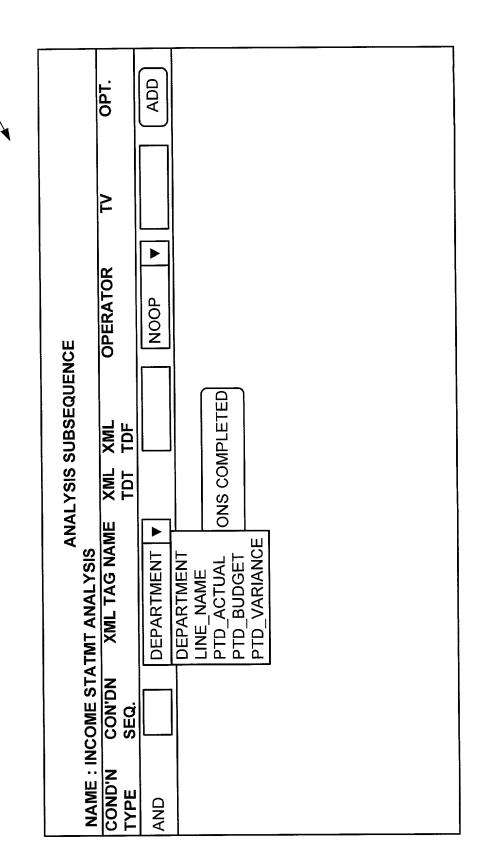


FIG. 15J

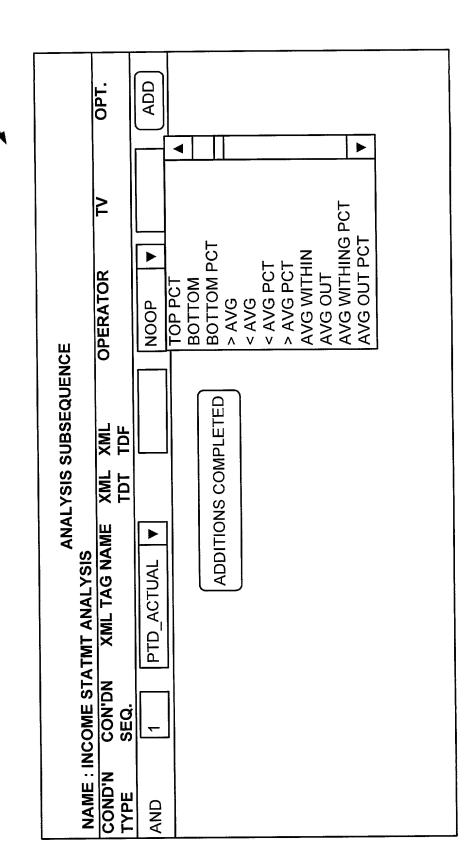
1520



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Gregory L. Maurer, Esq., Klarquist Sparkman, LLP, 121 S.W. Salmon Street, Suite 1600, Portland, Oregon 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 121 S.W. Salmon Street, Suite 1600, Portland, Oregon 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 121 S.W. Salmon Street, Suite 1600, Portland, Oregon 121 S.W. Salmon Street, Oregon 121 S.W. Salmon Street,

FIG. 15K



Gregory L. Maurer, Esq., Klarquist Sparkman, LLP, 121 S.W. Salmon Street, Suite 1600, Portland, Oregon 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING Express Mail No.: EL754021250US, Attorney Docket No.: 6115-60713, Page 31 of 103

FIG. 15L

NI · HMAN	NAME - INCOME STATMT	ANALYSIS	JALYSIS	ANALYSIS SUBSEQUENCE	ENCE		
COND'N	CON'DN		E XML TDT	XML	OPERATOR	17	ОРТ
AND		DEPARTMENT ▼			NOOP ▼		ADD
AND		PTD_ACTUAL				0	MOD DEL
AND	2	PTD_VARIANCE			^	300000	MOD DEL
AND	3	PTD_VARIANCE ▼			TOP PCT	10	MOD DEL
		ADDITI	ONS CC	ADDITIONS COMPLETED			

Gregory L. Maurer, Esq., Klarquist Sparkman, LLP, 121 S.W. Salmon Street, Suite 1600, Portland, Oregon 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING PY204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING Express Mail No.: EL754021250US, Attorney Docket No.: 6115-60713, Page 32 of 103

FIG. 15M

ADD.	ADD, EDIT OR DELETE SEQUENCES	SEQUENCES			
₽	NAME	DESCRIPTION	STATUS USER OPT	JSER	ОРТ
	INCOME STAT'T ANALYSIS	INCOME STAT'T ANALYSIS	AVAIL •	NB	ADD
24	FINANCIAL STATEMENT	FINANCIAL STATEMENT	AVAIL 🔻	rs	MOD
25	FSV	FSV	AVAIL 🔻	NB	MOD
26	COST CENTER SCORING 1	COST CENTER SCORING	DISAB ▼ LS	rs	MOD
27	COST CENTER SCORING 2	CSS PTD-VARIANCE	AVAIL V LS MOD	LS	MOD

1526

FIG. 15N

Ę G	SEQUENCE NAM	Ž ü	ADD OR EDIT SEQUENCE STEP INFORMATION
₽	STEP	STEP DIRECTIVE TYPE	DIRECTIVE ID LUB LUD
28	_	QUERY DIRECTIVE	QUERY FOR STEP (ADD) (DEFINE)
			VARIANCE AND VARIANCE PERCENT
			NEW QUERY NEIL'S QUERY
			NEIL'S OTHER QUERY
			LARRY'S QUERY
			YET ANOTHER LARRY QUERY ▼

Gregory L. Maurer, Esq., Klarquist Sparkman, LLP, 121 S.W. Salmon Street, Suite 1600, Portland, Oregon 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING PXpress Mail No.: EL754021250US, Attorney Docket No.: 6115-60713, Page 34 of 103

FIG. 150

žEQ	UENCE	ADD OR EDIT SEQUENCE STE SEQUENCE NAME: INCOME STATEMENT ANALYSIS	ADD OR EDIT SEQUENCE STEP INFORMATION COME STATEMENT ANALYSIS	INFORMATION	
<u></u>	STEP	STEP DIRECTIVE TYPE	DIRECTIVE ID	LUB LUD	
28	_	QUERY DIRECTIVE	NEW QUERY ▼	12/15/00	MOD DEFINE
78	8	ANALYSIS DIRECTIVE QUERY DIRECTIVE ANALYSIS DIRECTIVE EVENT DIRECTIVE DISTRIBUTION DIRECTIVE	■ DIRECTIVE		

FIG. 15P

SEQL	ADD OR EDIT SEQUENCE STE SEQUENCE STE SEQUENCE NAME: INCOME STATEMENT ANALYSIS	ADD OR EDIT SEQUENCE STEP INFORMATION ACOME STATEMENT ANALYSIS	T SEQUE	NCE STEP NALYSIS	INFORM	MATION		
S Q	ID ST DIRECTIVE TYPE		DIRECTIVE ID	Q	TOB TOD	TND		
28 1	28 1 QUERY DIR	NEW QUERY		•		12/15/00	(MOD	DEFINE
28 2	28 2 ANALYSIS DIR INCOME STMT ANALYSIS	INCOME STA	MT ANAL)	YSIS ▼	NB	12/15/00	MOD	DEFINE
28 3	DISTRIBU	TION DIRECTIVE	•	DIRECTIVE	Œ VE			

Gregory L. Maurer, Esq., Klarquist Sparkman, LLP, 121 S.W. Salmon Street, Suite 1600, Portland, Oregon 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING Express Mail No.: EL754021250US, Attorney Docket No.: 6115-60713, Page 36 of 103

CREATE **DISTRIBUTION FORMAT** SEQUENCE NAME: INCOME STATEMENT ANALYSIS **FORMAT** EXCEL HTML WAP HTML

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Gregory L. Maurer, Esq., Klarquist Sparkman, LLP, 121 S.W. Salmon Street, Suite 1600, Portland, Oregon 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: SCHEURICH 97204, (503) 226-73

FIG. 15R

ME SCHEDULE SEQUENCES	SEQUENCE NAME USER SCHEDULE DESC FREQ PRIORITY	INCOME STAT'T ANALYSIS ▼ LS ISA FOR DEC '00 IMMEDIATE ▼ ADD	TINGS SELECT SEQUENCE TO VIEW	COST CENTER SCORING - PTD VARIANCE VIEW	ETTS			
HOME INSTRUCTIONS	SEQUENCES AVAILABLE	ADMIN	SYS SETTINGS	LOGS APPI SETTINGS	MEDIA SETT'S			

FIG. 15S

SCHEDULE SEQUENCES		
SEQUENCE NAME USER SCHEDULE DESC	FREQ	PRIORITY
INCOME STAT'T ANALYSIS ▼ LS ISA FOR DEC '00	IMMEDIATE ▼	ADD
SELECT SEQUENCE TO VIEW	ONCE	
COST CENTER SCORING - PTD VARIANCE ▼	DAILY	
	WEEKLY MONTHLY	

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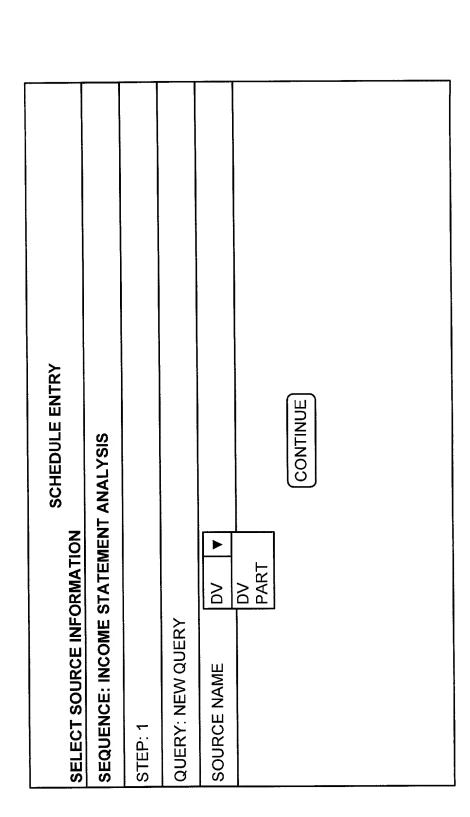
Gregory L. Maurer, Esq., Klarquist Sparkman, LLP, 121 S.W. Salmon Street, Suite 1600, Portland, Oregon 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: SCHEURICH 97204, (503) 226-73

FIG. 15T

ADD SEQUENCE TO SCHEDULE SEI ECT THE DAYS YOU WISH THE SEQUENCE TO RUN
□SUNDAY □ MONDAY □ TUESDAY □ WED □ THURS □ FRIDAY □ SATURDAY
START AT
8 ▼ : 30 ▼ PM ▼
NEXT START DATE
2000 ▼ DEC ▼ 15 ▼
SUBMIT

Gregory L. Maurer, Esq., Klarquist Sparkman, LLP, 121 S.W. Salmon Street, Suite 1600, Portland, Oregon 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING EXECUTABLE SEQUENCES TO PROCESS INFORMATION FROM A DATA COLLECTION, Express Mail No.: EL754021250US, Attorney Docket No.: 6115-60713, Page 40 of 103

FIG. 15U



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Gregory L. Maurer, Esq., Klarquist Sparkman, LLP, 121 S.W. Salmon Street, Suite 1600, Portland, Oregon 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 1704, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 1704, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 1704, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 1704, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 1704, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 1704, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 1704, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 1704, (503) 226-7391, Inventors: SCHEURICH ET AL., TITLE: SYSTEMS AND METHODS FOR DEFINING 1704, (503) 226-7391, Inventors: SCHEURICH ET AL., TITLE: SYSTEMS AND METHODS FOR DEFINING 1704, (503) 226-7391, Inventors: SCHEURICH ET AL., TITLE: SYSTEMS AND METHODS FOR DEFINING 1704, (503) 226-7391, Inventors: SCHEURICH ET AL., TITLE: SYSTEMS AND METHODS FOR DEFINING 1704, (503) 226-7391, Inventors: SCHEURICH ET AL., TITLE: SYSTEMS AND METHODS FOR DEFINING 1704, (503) 226-7391, Inventors: SCHEURICH ET AL., TITLE: SCHEURICH

tons one of

SCHEDULE ENTRY SELECT SOURCE INFORMATION	
SEQUENCE: INCOME STATEMENT ANALYSIS	
STEP: 1	
QUERY: NEW QUERY	
SOURCE NAME PART	
SOURCE SET OAS ▼	
CONTINUE	

Gregory L. Maurer, Esq., Klarquist Sparkman, LLP, 121 S.W. Salmon Street, Suite 1600, Portland, Oregon 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING PY204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING PY204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING PY204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING PY204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING PY204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING PY204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING PY204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING PY204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING PY204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING PY204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING PY204, (503) 226-7391, Inventors: SYSTEMS AND METHODS FOR DEFINING PY204, (503) 226-7391, Inventors: SYSTEMS AND METHODS FOR DEFINING PY204, (503) 226-7391, Inventors: SYSTEMS AND METHODS FOR DEFINING PY204, (503) 226-7391, Inventors: SYSTEMS AND METHODS FOR DEFINING PY204, (503) 226-7391, Inventors: SYSTEMS AND METHODS FOR DEFINING PY204, (503) 226-7391, Inventors: SYSTEMS AND METHODS FOR DEFINING PY204, (503) 226-7391, Inventors: SYSTEMS AND METHODS FOR DEFINING PY204, (503) 226-7391, Inventors: SYSTEMS AND METHODS FOR DEFINING PY204, (503) 226-7391, Inventors: SYSTEMS AND METHODS FOR DEFINING PY204, (503) 226-7391, Inventors: SYSTEMS AND METHODS FOR DEFINING PY204, (503) 226-7391, Inventors: SYSTEMS AND METHODS FOR DEFINING PY204, (503) 226-7391, Inventors: SYSTEMS AND METHODS FOR DEFINING PY204, (503) 226-7391, Inventors: SYSTEMS AND METHODS FOR DEFINING PY204, (503) 226-7391, Inventors: SYSTEMS AND PY204, (503) 2

⁷IG. 15W

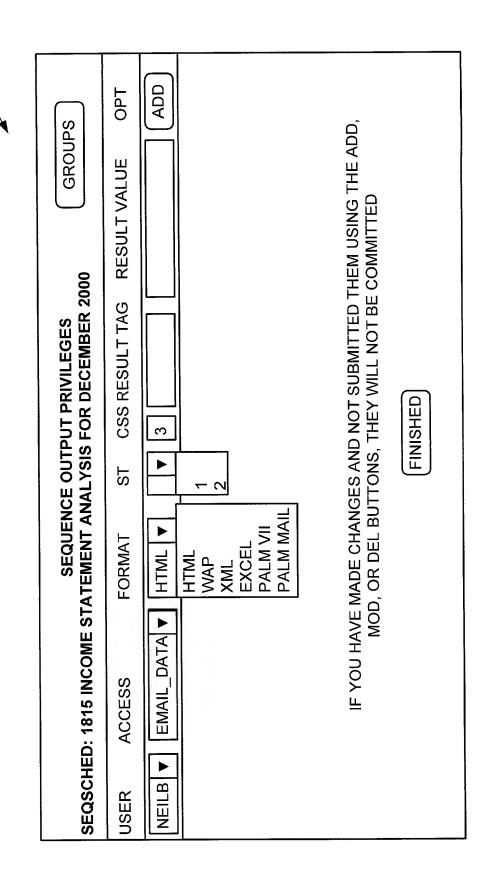
SEQUENCE: INCOME SCHEDULE: INCOME SEQUENCE STEP: 1 NEW QUERY	FILTER VALUES INCOME STATEMENT ANALYSIS INCOME STATEMENT ANALYSIS STEP: 1	LUES YSIS YSIS F	FILTER VALUES FOR QUERY INCOME STATEMENT ANALYSIS INCOME STATEMENT ANALYSIS FOR DECEMBER 2000 STEP: 1
TABLE NAME	COL NAME	ОР	FILTER VALUE
BUDGET_D	BUDGET	Z	ACTUAL ▼ MOD
			CORPORATE 1997 ▼ MOD DEL
			▼ ADD
PERIOD_D	PERIOD	li.	DEC-2000
IF YOU HAVE MA MOD, C	ADE CHANGES AND NOT OR DEL BUTTONS, THEY FINISHED	NOT THEY	HAVE MADE CHANGES AND NOT SUBMITTED THEM USING THE ADD, MOD, OR DEL BUTTONS, THEY WILL NOT BE COMMITTED FINISHED

FIG. 15X

FIG. 15Y

SEQSCHED	: 1815 INCOME ST	SEQUENCI	E OUTP	SEQSCHED: 1815 INCOME STATEMENT ANALYSIS FOR DECEMBER 2000	000	GROUPS	
USER	ACCESS	FORMAT	ST	CS RESULT TAG	RESULT VALUE	ALUE	OPT
NEILB ◀	EMAIL_DATA ▼	HTML	•				ADD
	EMAIL_DATA EMAIL_URL						
	DESK_ALERT						
	IF YOU HAVE MOI	MADE CHANG D, OR DEL BUT	ES ANE TONS,	IF YOU HAVE MADE CHANGES AND NOT SUBMITTED THEM USING THE ADD, MOD, OR DEL BUTTONS, THEY WILL NOT BE COMMITTED	THEM USING E COMMITTEI	3 THE ADD D	-
			E I	FINISHED			

FIG. 15Z



IG 15AA

SEQSCHED: 1815 INCOME STA	SEQUENCE OUTPUT PRIVILEGES STATEMENT ANALYSIS FOR DECEMBER 2000	GES 11BER 2000
CONDITION SUBSEQUENCE	RESULT TAG	RESULT VALUES
SUBSEQUENCE 2 ▼	SELECT DESIRED TAG	
	SELECT DESIRED TAG NO RESULT TAG NEEDED DEPARTMENT LINE_NAME PTD_ACTUAL PTD_BUDGET PTD_VARIANCE	
	FINISHED	

Gregory L. Maurer, Esq., Klarquist Sparkman, LLP, 121 S.W. Salmon Street, Suite 1600, Portland, Oregon 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING Express Mail No.: EL754021250US, Attorney Docket No.: 6115-60713, Page 47 of 103

FIG. 15BB

SEQSCHED: 1815 INCOME STATEMENT ANALYSIS FOR DECEMBER 2000	
SELECT	
<val> □ MAINTENANCE</val>	•
<val> IX NON-PRODUCT SALES</val>	
×	
<val> </val>	>
FINISHED	

Ur lind faret bad dans

SEQUENCE OUTPUT PRIVILEGES MENT ANALYSIS FOR DECEMBER 2000	RESULT VALUES	<pre> <?XML VERSION = "1.0"?> <split values=""> <split values=""> <val>COMMUNICATIONS RESOURCES</val> <val>EAST REGION SALES</val> <val>FINANCES</val> <val>GOVERNMENT SALES</val> <val>BOUCT SALES</val> <val>PRODUCT SALES</val> </split> </split> </pre>	FINISHED
SEQUENCE OUTPUT PRIVILEGES SEQSCHED: 1815 INCOME STATEMENT ANALYSIS FOR DECEMBER 2000	CONDITION SUBSEQUENCE RESULT TAG	SUBSEQUENCE 2 • DEPARTMENT	FIN

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Gregory L. Maurer, Esq., Klarquist Sparkman, LLP, 121 S.W. Salmon Street, Suite 1600, Portland, Oregon 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 17204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 17204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 17204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 17204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 17204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINION 17204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINION 17204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINION 17204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINION 17204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINION 17204, (503) 226-7391, Inventors: Systems Andrew 17204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINION 17204, (503) 226-7391, Inventors: Systems Andrew 17204,

FIG. 15DD

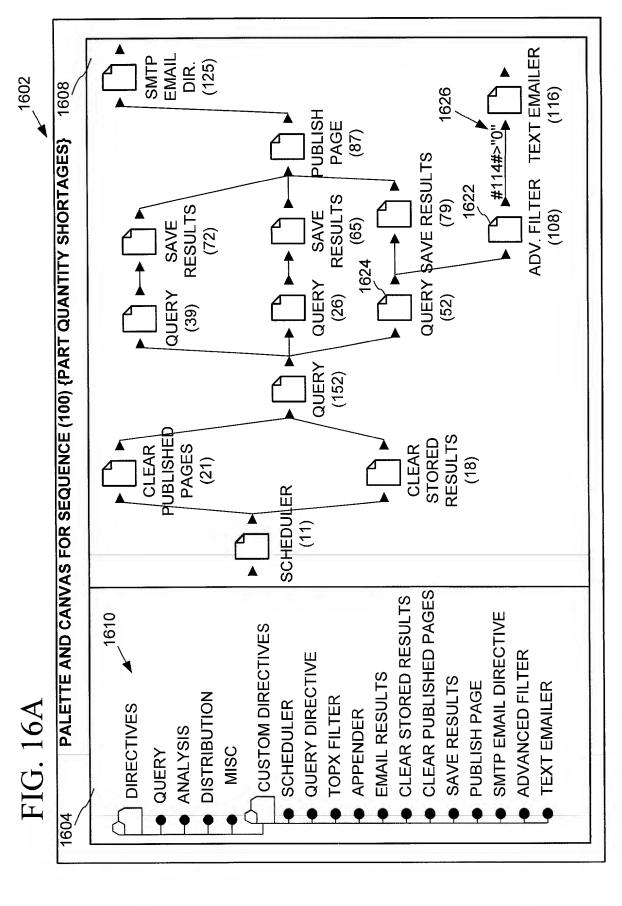
SEQSCHED	SEQSCHED: 1815 INCOME ST	SEQUENCE OUTPUT PRIVILEGES IE STATEMENT ANALYSIS FOR DECEMBER 2000	SE OUTI	SEQUENCE OUTPUT PRIVILEGES MENT ANALYSIS FOR DECEMBER	EGES EMBER 2	000	GROUPS	PS
USER	ACCESS	FORMAT	ST	CSS RESULT TAG	JLT TAG	RESU	RESULT VALUE	OPT
NEILB ▼	EMAIL_DATA ▼	HTML	•	3				ADD
NEILB	EMAIL_DATA ▼	HTML •	2	2 DEP/	DEPARTME	XML</td <td><?XML VERSION =</td><td>MOD</td></td>	XML VERSION =</td <td>MOD</td>	MOD
	IF YOU HAVE MADE CHANGES AND NOT SUBMITTED THEM USING THE ADD,	MADE CHANG	SES ANI	NOT SUB	MITTED	M HE	SING THE AD	JD,
	MOM	MOD, OR DEL BUTTONS, THEY WILL NOT BE COMMITTED FINISHED	TTONS,	NS, THEY WILI	NOT BE	COMM	ED H	

Gregory L. Maurer, Esq., Klarquist Sparkman, LLP, 121 S.W. Salmon Street, Suite 1600, Portland, Oregon 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING EXECUTABLE SEQUENCES TO PROCESS INFORMATION FROM A DATA COLLECTION, Express Mail No.: EL754021250US, Attorney Docket No.: 6115-60713, Page 50 of 103

FIG. 15EE

SEQUENCE NAME USER SCH	USER SCHEDULE DESC	FREQ	PRIORITY
TEST SEQUENCE FOR PRIV ▼ LS		IMMEDIATE ▼	ADD
SELECT SEQUENCE TO VIEW			5
TEST SEQUENCE FOR PRIVS AND STEPS	•	VIEW	
TEST SEQUENCE FOR PRIVS AND STEPS COST CENTER SCORING - PTD COST CENTER SCORING - PTD TEST VOAGE AR - PTD REVUENUE BY DEPARTMENT SOCCER SCORES BUDGET VARIANCE SCORING INCOME STATEMENT ANALYSIS			

SEQUENCE NAME USER SCHEDULE DESC FREQ PRIORITY TEST SEQUENCE FOR PRIV LS IMMEDIATE ▼ ADD SELECT SEQUENCE FOR PRIVS AND STEPS ▼ VIEW ADD SEQUENCE: INCOME STATEMENT ANALYSIS USER: NB STATUS FREQ START OPTIONS 1815 INCOME STATT ANALYSIS DEC 2001 SCHED DAILY ▼ 33-APR-2001 MOD DEL 1815 INCOME STATT ANALYSIS DEC 2001 SCHED PRIVILEGES PRIVILEGES	SCHEDULE SEQUENCES	
IMMEDIATE ▼ VIEW VIEW START S3-APR-2001 O8:30 PM PRIV	USER SCHEDULE DESC	PRIORITY
VIEW FREQ START AILY ▼ 23-APR-2001 08:30 PM	CE FOR PRIV ▼ LS	▼ ADD
(VIEW) FREQ START JAILY ▼ 23-APR-2001 08:30 PM (PRIV	SELECT SEQUENCE TO VIEW	
FREQ START JAILY ▼ 23-APR-2001 08:30 PM PRIV	CE FOR PRIVS AND STEPS ▼	
S FREQ START DAILY ▼ 23-APR-2001 08:30 PM PRIV	SEQUENCE: INCOME STATEMENT ANALYSIS USER: NB	
DAILY ▼ 23-APR-08:30 PI	DESCRIPTION STATUS FREQ	OPTIONS
	DAILY ▼ 23-APR-08:30 PI	2001 MOD DEL PRIVILEGES



Gregory L. Maurer, Esq., Klarquist Sparkman, LLP, 121 S.W. Salmon Street, Suite 1600, Portland, Oregon 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING PAPPESS Mail No.: EL754021250US, Attorney Docket No.: 6115-60713, Page 53 of 103

FIG. 16B

SEQUENCE PROPERTIES	RTIES	X
SEQUENCE NAME: DESCRIPTION: NOTES:	ME: PART QUANTITY SHORTAGES FINDS PART QUANTITY SHORTAGES SAVE THIS ONE	TAGES CANCEL
SEQUENCE AUTHOR: SEQUENCE STATUS:	THOR: AUTHOR1 ATUS: STATUS1	ADD VARIABLE
GLOBAL VARIABL	ABLES:	
CAPTION: VALUE:	CONNECT STRING JDBC:ORACLE.THIN@123.245.23.1:1521:CONNECT30	NAME: CONNECT_STRING I:CONNECT30
CAPTION: VALUE:	DATABASE USER NAME RRIC1234	NAME: USER_NAME
CAPTION: VALUE:	DATABASE PASSWORD SEQUENCE	NAME: USER_PWD
CAPTION: VALUE:	OWNERNAME QRY_ANALYSIS	NAME: OWNERNAME
CAPTION: VALUE:	CURRENT PERIOD (1997-09) SEP-97	NAME: CURPERIOD

1660 ID: 108 DIRECTIVE NAME: (ADFILTER) ADVANCED FILTER CANCE PARAM NAME (FILTER_EXP) FILTER EXPRESSION INPUT INPUT #REQUIRED_QUANTITY# >200 DB3(52) RESULT DATA INPUT 9 K DIRECTIVE PROPERTIES ACTIVITY

SUM4 78260 178828 390000 3510 -240000 244800 SUM3 -43092 48750 -1440 -4800 COST CENTER ANALYSIS 244800 240000 ш SUM2 43092 1440 4800 Ш Ω 48750 0 0 0 0 SUM1 0 CLEANING AND MAIN ACCOMMODATION ACCOUNT DESC **ADVERTISING** CAR RENTAL **BAD DEBT** \mathbf{m} AIRFARE ⋖ BROWSER

Gregory L. Maurer, Esq., Klarquist Sparkman, LLP, 121 S.W. Salmon Street, Suite 1600, Portland, Oregon 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING EXECUTABLE SEQUENCES TO PROCESS INFORMATION FROM A DATA COLLECTION, DATA COLLECTION, Express Mail No.: EL754021250US, Attorney Docket No.: 6115-60713, Page 56 of 103

Gregory L. Maurer, Esq., Klarquist Sparkman, LLP, 121 S.W. Salmon Street, Suite 1600, Portland, Oregon 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING EXECUTABLE SEQUENCES TO PROCESS INFORMATION FROM A DATA COLLECTION, Express Mail No.: EL754021250US, Attorney Docket No.: 6115-60713, Page 57 of 103

FIG. 18

</OUT_PARAMETERS>
</DF DIRECTIVE DEFINITION>

_1801

<DF DIRECTIVE DEFINITION DIRECTIVE ID="DB2" DIRECTIVE NAME="DATA DIRECTIVE"</p> THREADING EFFECT="SPLIT" DIRECTIVE DESC="SQL DATADIRECTIVE THAT SPLITS RESULTS ON GIVEN COLUMN" DIRECTIVE_VENDOR="DPA" DIRECTIVE VERSION="1" DIRECTIVE CATEGORY="DPA-MISC"> <DEPLOYMENT SERVICE="DPA_DIRECTIVE_MGR" MACHINE="SKUNKNT4"</p> PORT="9070"/> <IN PARAMETERS> <PARAMETER PARAM TYPE="IN" PARAM CAPTION="SQL"</p> PARAM DATA TYPE="STRING" PARAM NAME="SQL"/> <PARAMETER PARAM_TYPE="IN" PARAM CAPTION="COLUMN TO SPLIT" PARAM DATA TYPE="STRING" PARAM NAME="SPLIT COLUMN"/> <PARAMETER PARAM TYPE="IN" PARAM CAPTION="CONNECTION STRING" PARAM DATA TYPE="STRING" PARAM NAME="CONNECTION STRING"/> <PARAMETER PARAM TYPE="IN" PARAM CAPTION="DATABASE USER NAME" PARAM DATA TYPE="STRING" PARAM NAME="USERNAME"/> <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="DATABASE PASSWORD" PARAM_DATA_TYPE="STRING" PARAM_NAME="PWD"/> </IN PARAMETERS> **<OUT PARAMETERS>** <PARAMETER PARAM TYPE="OUT" PARAM CAPTION="RESULT DATA" PARAM DATA TYPE="STRING" PARAM NAME="RESULTSET"/> <PARAMETER PARAM TYPE="OUT" PARAM CAPTION="RESULT METADATA" PARAM_DATA TYPE="STRING" PARAM NAME="RESULTMETADATA"/> <PARAMETER PARAM TYPE="OUT" PARAM CAPTION="SPLIT VALUE" PARAM DATA TYPE="STRING" PARAM_ NAME="SPLITVALUE"/>

FIG. 19A

_1901

```
- <DF DIRECTIVE DEFINITION LIST>
- <DF_DIRECTIVE_DEFINITION DIRECTIVE_ID="SB1" DIRECTIVE_NAME="SCHEDULER"
DIRECTIVE CATEGORY="DPA-MISC" THREADING EFFECT="SPLIT"
DIRECTIVE_DESC="SCHEDULE DIRECTIVE" DIRECTIVE_VENDOR="DPA"
DIRECTIVE VERSION="1">
- <!-- CAN ADD A TYPE OR ICON NAME
- <IN_PARAMETERS>
 <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="FREQUENCY"
PARAM DATA TYPE="STRING" PARAM NAME="FREQUENCY" />
 </IN PARAMETERS>
 <OUT PARAMETERS />
DEPLOYMENT SERVICE="DPA_DIRECTIVE_MGR" MACHINE="SKUNKNT4"
PORT="9070" />
//DF_DIRECTIVE DEFINITION>
DF_DIRECTIVE_DEFINITION DIRECTIVE_ID="DB2" DIRECTIVE_NAME="DATA DIRECTIVE"
THREADING_EFFECT="SPLIT" DIRECTIVE_DESC="SQL DATADIRECTIVE THAT SPLITS
RESULTS ON GIVEN COLUMN" DIRECTIVE_VENDOR="DPA" DIRECTIVE_VERSION="1"
DIRECTIVE CATEGORY="DPA-MISC">
DEPLOYMENT SERVICE="DPA_DIRECTIVE_MGR" MACHINE="SKUNKNT4" PORT="9070" /
- IN PARAMETERS>
PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="SQL"
EARAM DATA TYPE="STRING" PARAM NAME="SQL" />
▶<PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="COLUMN TO SPLIT"</p>
PARAM_DATA_TYPE="STRING" PARAM_NAME="SPLIT_COLUMN" />
 <PARAMETER PARAM TYPE="IN" PARAM CAPTION="CONNECTION STRING"
PARAM_DATA_TYPE="STRING" PARAM_NAME="CONNECTION_STRING" />
 <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="DATABASE USER NAME"
PARAM DATA TYPE="STRING" PARAM NAME="USERNAME" />
 <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="DATABASE PASSWORD"
PARAM_DATA_TYPE="STRING" PARAM NAME="PWD" />
 </IN PARAMETERS>
```

FIG. 19B

```
- <OUT PARAMETERS>
 <PARAMETER PARAM_TYPE="OUT" PARAM CAPTION="RESULT DATA"
PARAM DATA TYPE="STRING" PARAM NAME="RESULTSET" />
 <PARAMETER PARAM TYPE="OUT" PARAM CAPTION="RESULT METADATA"
PARAM DATA TYPE="STRING" PARAM NAME="RESULTMETADATA" />
 <PARAMETER PARAM TYPE="OUT" PARAM CAPTION="SPLIT VALUE"
PARAM DATA TYPE="STRING" PARAM NAME="SPLITVALUE" />
 </OUT PARAMETERS>
 </DF DIRECTIVE DEFINITION>
- <DF_DIRECTIVE_DEFINITION DIRECTIVE_ID="AB1" DIRECTIVE_NAME="TOPX FILTER"
THREADING_EFFECT="STANDARD" DIRECTIVE_DESC="FILTER OUT TOP X ROWS FROM
RESULTSET" DIRECTIVE_VENDOR="DPA" DIRECTIVE_VERSION="1"
DIRECTIVE CATEGORY="DPA-MISC">
 <DEPLOYMENT SERVICE="DPA DIRECTIVE MGR" MACHINE="SKUNKNT4"</p>
PORT="9070" />
-XIN_PARAMETERS>
**PARAMETER PARAM TYPE="IN" PARAM CAPTION="RESULT SET METADATA"
PARAM_DATA_TYPE="STRING" PARAM NAME="RESULTMETADATA" />
PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="RESULT SET"
PARAM_DATA TYPE="STRING" PARAM NAME="RESULTSET" />
PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="COLUMN POSITION FOR TOPX"
PARAM_DATA_TYPE="STRING" PARAM_NAME="TOPX COLUMN" />
IN PARAMETERS>
SOUT PARAMETERS>
PARAMETER PARAM TYPE="OUT" PARAM CAPTION="RESULT DATA"
PARAM DATA TYPE="STRING" PARAM NAME="RESULTSET" />
PARAMETER PARAM TYPE="OUT" PARAM CAPTION="RESULT METADATA"
PARAM DATA TYPE="STRING" PARAM NAME="RESULTMETADATA" />
 </OUT PARAMETERS>
 </DF DIRECTIVE DEFINITION>
- <DF_DIRECTIVE_DEFINITION DIRECTIVE_ID="AB2" DIRECTIVE_NAME="APPENDER"
DIRECTIVE TYPE="" THREADING EFFECT="JOIN" DIRECTIVE DESC="REJOIN SPLIT
RESULTSETS" DIRECTIVE_VENDOR="DPA" DIRECTIVE_VERSION="1"
DIRECTIVE CATEGORY="DPA-MISC">
 <DEPLOYMENT SERVICE="DPA_DIRECTIVE_MGR" MACHINE="SKUNKNT4" PORT="9070" /</p>
- <IN PARAMETERS>
 <PARAMETER PARAM_TYPE="IN" PARAM CAPTION="RESULT SET METADATA"
PARAM DATA TYPE="STRING" PARAM NAME="RESULTMETADATA" />
 <PARAMETER PARAM TYPE="IN" PARAM CAPTION="RESULT SET"
PARAM DATA TYPE="STRING" PARAM NAME="RESULTSET" />
 </IN_PARAMETERS>
```

FIG. 19C

__1903

```
- <OUT PARAMETERS>
 <PARAMETER PARAM TYPE="OUT" PARAM CAPTION="RESULT DATA"
PARAM_DATA_TYPE="STRING" PARAM NAME="RESULTSET" />
 <PARAMETER PARAM TYPE="OUT" PARAM CAPTION="RESULT METADATA"
PARAM_DATA_TYPE="STRING" PARAM_NAME="RESULTMETADATA" />
 </OUT PARAMETERS>
 </DF DIRECTIVE DEFINITION>
- <DF_DIRECTIVE_DEFINITION DIRECTIVE_ID="MB1" DIRECTIVE_NAME="EMAIL RESULTS"
THREADING EFFECT="STANDARD" DIRECTIVE_TYPE="" DIRECTIVE_DESC="SIMPLE
EMAIL DIRECTIVE DIRECTIVE VENDOR="DPA" DIRECTIVE VERSION="1"
DIRECTIVE CATEGORY="DPA-MISC">
 <DEPLOYMENT SERVICE="DPA_DIRECTIVE_MGR" MACHINE="SKUNKNT4" PORT="9070" /</p>
-IN PARAMETERS>
PARAMETER PARAM TYPE="IN" PARAM CAPTION="EMAIL ADDRESS LIST"
PARAM DATA TYPE="STRING" PARAM NAME="MAILADR" />
SPARAMETER PARAM TYPE="IN" PARAM CAPTION="SUBJECT LINE"
PÄRAM DATA TYPE="STRING" PARAM NAME="SUBJECT" />
PARAMETER PARAM TYPE="IN" PARAM CAPTION="MESSAGE DATA"
PARAM DATA TYPE="STRING" PARAM NAME="MESSAGE" />
</IN PARAMETERS>
SOUT PARAMETERS />
-SDF DIRECTIVE DEFINITION DIRECTIVE_ID="CRB1" DIRECTIVE_NAME="CLEAR STORED
RESULTS" THREADING EFFECT="STANDARD" DIRECTIVE TYPE=""
DIRECTIVE DESC="REMOVE PREVIOUS RESULT SETS FROM REPOSITORY"
DIRECTIVE_VENDOR="DPA" DIRECTIVE_VERSION="1" DIRECTIVE_CATEGORY="DPA-
MISC">
<DEPLOYMENT SERVICE="DPA_DIRECTIVE_MGR" MACHINE="SKUNKNT4" PORT="9070" /</pre>
- <IN PARAMETERS>
 <PARAMETER PARAM TYPE="IN" PARAM CAPTION="OWNER ID"
PARAM DATA TYPE="STRING" PARAM NAME="OWNERID" />
 <PARAMETER PARAM TYPE="IN" PARAM CAPTION="RESULTNAME"
PARAM_DATA TYPE="STRING" PARAM_NAME="RESULTNAME" />
</IN PARAMETERS>
<OUT PARAMETERS />
</DF_DIRECTIVE_DEFINITION>
```

FIG. 19D

1904

- <DF DIRECTIVE DEFINITION DIRECTIVE ID="CRC1" DIRECTIVE NAME="CLEAR" PUBLISHED PAGES" THREADING EFFECT="STANDARD" DIRECTIVE TYPE="" DIRECTIVE DESC="REMOVE PREVIOUS PUBLISHED PAGES FROM REPOSITORY" DIRECTIVE VENDOR="DPA" DIRECTIVE_VERSION="1" DIRECTIVE_CATEGORY="DPA-MISC"> <DEPLOYMENT SERVICE="DPA_DIRECTIVE_MGR" MACHINE="SKUNKNT4" PORT="9070" /</p> - <IN PARAMETERS> <PARAMETER PARAM TYPE="IN" PARAM CAPTION="OWNERID"</p> PARAM DATA TYPE="STRING" PARAM NAME="OWNERID" /> <PARAMETER PARAM TYPE="IN" PARAM CAPTION="PAGE NAME"</p> PARAM DATA TYPE="STRING" PARAM NAME="PAGENAME" /> IN PARAMETERS> **SOUT PARAMETERS /> I**/DF DIRECTIVE DEFINITION> -VDF DIRECTIVE DEFINITION DIRECTIVE ID="SR1" DIRECTIVE NAME="SAVE RESULTS" THREADING EFFECT="STANDARD" DIRECTIVE TYPE="" DIRECTIVE DESC="SAVES RESULTS TO REPOSITORY" DIRECTIVE_VENDOR="DPA" DIRECTIVE_VERSION="1" DÎRECTIVE CATEGORY="DPA-MISC"> DEPLOYMENT SERVICE="DPA DIRECTIVE MGR" MACHINE="SKUNKNT4" PORT="9070" / > - IN PARAMETERS> PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="RESULT SET OWNER" PARAM DATA TYPE="STRING" PARAM NAME="OWNER" /> PARAMETER PARAM TYPE="IN" PARAM CAPTION="RESULT SET" PARAM DATA TYPE="STRING" PARAM NAME="RESULTSET" /> <PARAMETER PARAM TYPE="IN" PARAM CAPTION="RESULT SET METADATA" PARAM DATA TYPE="STRING" PARAM NAME="RESULTMETADATA" /> <PARAMETER PARAM TYPE="IN" PARAM CAPTION="RESULT SET NAME"</p> PARAM DATA TYPE="STRING" PARAM NAME="RESULTNAME" /> </IN PARAMETERS> - <OUT PARAMETERS> <PARAMETER PARAM TYPE="OUT" PARAM CAPTION="RESULTSET ID"</p> PARAM DATA TYPE="STRING" PARAM NAME="RESULTSETID" /> </OUT PARAMETERS> </DF DIRECTIVE DEFINITION>

FIG. 19E

1905

- <DF DIRECTIVE_DEFINITION DIRECTIVE_ID="CR2" DIRECTIVE_NAME="PUBLISH PAGE" THREADING_EFFECT="STANDARD" DIRECTIVE_TYPE="" DIRECTIVE DESC="PUBLISHES PAGE & GRANTS SECURITY" DIRECTIVE_VENDOR="DPA" DIRECTIVE_VERSION="1" DIRECTIVE CATEGORY="DPA-MISC"> <DEPLOYMENT SERVICE="DPA_DIRECTIVE_MGR" MACHINE="SKUNKNT4" PORT="9070" /</p> - <IN PARAMETERS> <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="GRANT SECURITY LIST" PARAM_DATA_TYPE="STRING" PARAM_NAME="SECDOC" /> <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="METADATA FOR SECDOC" PARAM DATA TYPE="STRING" PARAM NAME="SECMETA" /> PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="GRANT SECURITY LIST" PARAM_DATA TYPE="STRING" PARAM NAME="SECCOLNAME" /> SPARAMETER PARAM TYPE="IN" PARAM CAPTION="PAGE OWNER" PARAM DATA TYPE="STRING" PARAM NAME="OWNER" /> PARAMETER PARAM TYPE="IN" PARAM CAPTION="PAGE NAME" PARAM DATA TYPE="STRING" PARAM NAME="PAGENAME" /> ♥PARAMETER PARAM TYPE="IN" PARAM CAPTION="PAGE SLICE NAME" PARAM DATA TYPE="STRING" PARAM NAME="PAGESLICENAME" /> PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="PAGE DEFINITION" PARAM DATA TYPE="STRING" PARAM NAME="PAGEDEFN" /> SPARAMETER PARAM_TYPE="IN" PARAM CAPTION="IN RESULTS KEY" PARAM DATA TYPE="STRING" PARAM NAME="P1" /> PARAMETER PARAM_TYPE="IN" PARAM CAPTION="IN RESULTS KEY" PARAM DATA TYPE="STRING" PARAM NAME="P2" /> <PARAMETER PARAM TYPE="IN" PARAM CAPTION="IN RESULTS KEY" PARAM DATA_TYPE="STRING" PARAM NAME="P3" /> <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="IN RESULTS KEY" PARAM DATA TYPE="STRING" PARAM NAME="P4" /> <PARAMETER PARAM TYPE="IN" PARAM CAPTION="IN RESULTS KEY" PARAM DATA TYPE="STRING" PARAM NAME="P5" /> <PARAMETER PARAM_TYPE="IN" PARAM CAPTION="IN RESULTS KEY" PARAM DATA TYPE="STRING" PARAM_NAME="P6" /> </IN PARAMETERS>

FIG. 19F

```
- <OUT PARAMETERS>
 <PARAMETER PARAM TYPE="OUT" PARAM CAPTION="PAGE ID"
PARAM DATA TYPE="STRING" PARAM NAME="PAGEID" />
 <PARAMETER PARAM TYPE="OUT" PARAM CAPTION="PAGE OWNER"
PARAM DATA TYPE="STRING" PARAM NAME="OWNER" />
 <PARAMETER PARAM TYPE="OUT" PARAM CAPTION="PAGE NAME"
PARAM DATA TYPE="STRING" PARAM NAME="PAGENAME" />
 <PARAMETER PARAM_TYPE="OUT" PARAM CAPTION="PAGE SLICE NAME"
PARAM DATA TYPE="STRING" PARAM NAME="PAGESLICENAME" />
 </OUT PARAMETERS>
 </DF DIRECTIVE DEFINITION>
- <DF DIRECTIVE DEFINITION DIRECTIVE ID="DB3" DIRECTIVE NAME="DATA DIRECTIVE"
TEREADING EFFECT="STANDARD" DIRECTIVE_DESC="RETRIEVE DATA AND ASSEMBLE
INTO RESULT SET" DIRECTIVE_VENDOR="DPA" DIRECTIVE_VERSION="1"
DIRECTIVE CATEGORY="DPA-MISC">
 DEPLOYMENT SERVICE="DPA_DIRECTIVE_MGR" MACHINE="SKUNKNT4" PORT="9070" /
- IN PARAMETERS>
SPARAMETER PARAM TYPE="IN" PARAM_CAPTION="SQL"
PARAM DATA TYPE="PARAMITERIZED SQL STRING" PARAM NAME="SQL" />
 PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="CONNECTION STRING"
PARAM DATA TYPE="STRING" PARAM NAME="CONNECTION_STRING" />
 ☑PARAMETER PARAM TYPE="IN" PARAM CAPTION="DATABASE USER NAME"
PARAM_DATA_TYPE="STRING" PARAM NAME="USERNAME" />
 PARAMETER PARAM TYPE="IN" PARAM CAPTION="DATABASE PASSWORD"
PARAM_DATA_TYPE="STRING" PARAM_NAME="PWD" />
 <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="P1" PARAM_DATA_TYPE="STRING"
PARAM NAME="P1" />
 <PARAMETER PARAM TYPE="IN" PARAM CAPTION="P2" PARAM_DATA TYPE="STRING"
PARAM NAME="P2" />
 <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="P3" PARAM_DATA_TYPE="STRING"
PARAM NAME="P3" />
 <PARAMETER PARAM TYPE="IN" PARAM CAPTION="P4" PARAM DATA TYPE="STRING"
PARAM NAME="P4" />
 <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="P5" PARAM_DATA_TYPE="STRING"
PARAM NAME="P5" />
 </IN PARAMETERS>
```

FIG. 19G

1907

- <OUT PARAMETERS> <PARAMETER PARAM TYPE="OUT" PARAM CAPTION="RESULT DATA"</p> PARAM DATA TYPE="STRING" PARAM NAME="RESULTSET" /> <PARAMETER PARAM TYPE="OUT" PARAM CAPTION="RESULT METADATA" PARAM DATA TYPE="STRING" PARAM NAME="RESULTMETADATA" /> </OUT PARAMETERS> </DF DIRECTIVE DEFINITION> - <DF DIRECTIVE DEFINITION DIRECTIVE ID="MB2" DIRECTIVE NAME="SMTP EMAIL DIRECTIVE" THREADING EFFECT="STANDARD" DIRECTIVE TYPE="" DIRECTIVE DESC="SEND PUBLISHED PAGES" DIRECTIVE VENDOR="DPA" DIRECTIVE VERSION="1" DIRECTIVE CATEGORY="DPA-MISC"> <DEPLOYMENT SERVICE="DPA_DIRECTIVE_MGR" MACHINE="SKUNKNT4" PORT="9070" /</p> **IN PARAMETERS>** PARAMETER PARAM TYPE="IN" PARAM CAPTION="EMAIL ADDRESSES" PARAM DATA TYPE="STRING" PARAM NAME="ADDRDOC" /> SPARAMETER PARAM TYPE="IN" PARAM CAPTION="METADATA FOR ADDRDOC" PARAM DATA TYPE="STRING" PARAM NAME="ADDRMETA" /> PARAMETER PARAM TYPE="IN" PARAM CAPTION="EMAIL COLUMN NAME" BARAM DATA TYPE="STRING" PARAM NAME="ADDRCOLNAME" /> «PARAMETER PARAM TYPE="IN" PARAM CAPTION="EMAIL COLUMN NAME" PARAM DATA TYPE="STRING" PARAM NAME="IDCOLNAME" /> PARAM DATA TYPE="STRING" PARAM NAME="SUBJECT" /> *PARAMETER PARAM TYPE="IN" PARAM CAPTION="PAGE OWNER" PARAM DATA TYPE="STRING" PARAM NAME="OWNER" /> <PARAMETER PARAM TYPE="IN" PARAM CAPTION="PAGE NAME" PARAM DATA TYPE="STRING" PARAM NAME="PAGENAME" /> <PARAMETER PARAM TYPE="IN" PARAM CAPTION="PAGE INSTANCE" PARAM DATA TYPE="STRING" PARAM NAME="PAGEINST" /> <PARAMETER PARAM TYPE="IN" PARAM CAPTION="MAIL FORMAT" PARAM DATA TYPE="STRING" PARAM NAME="FORMAT" /> <PARAMETER PARAM TYPE="IN" PARAM CAPTION="SEND FROM MAIL ADDRESS" PARAM DATA TYPE="STRING" PARAM NAME="SENDFROM" /> </IN PARAMETERS>

FIG. 19H

```
- <OUT PARAMETERS>
<PARAMETER PARAM_TYPE="OUT" PARAM CAPTION="ERROR MESSAGES"</pre>
PARAM DATA TYPE="STRING" PARAM NAME="ERROR MSG" />
 </OUT PARAMETERS>
 </DF DIRECTIVE DEFINITION>
- <DF DIRECTIVE DEFINITION DIRECTIVE ID="ABFILTER" DIRECTIVE NAME="ADVANCED"
FILTER" THREADING EFFECT="STANDARD" DIRECTIVE TYPE=""
DIRECTIVE DESC="FILTER RESULTS" DIRECTIVE VENDOR="DPA"
DIRECTIVE VERSION="1" DIRECTIVE CATEGORY="DPA-MISC">
 <DEPLOYMENT SERVICE="DPA_DIRECTIVE_MGR" MACHINE="SKUNKNT4" PORT="9070" /</p>
- <IN PARAMETERS>
►PARAMETER PARAM TYPE="IN" PARAM CAPTION="FILTER EXPRESSION"
PARAM DATA TYPE="STRING" PARAM NAME="FILTER EXP" />
PARAMETER PARAM TYPE="IN" PARAM CAPTION="RESULTS METADATA"
PARAM DATA TYPE="STRING" PARAM_NAME="METADOC" />
*PARAMETER PARAM TYPE="IN" PARAM CAPTION="RESULTS"
PARAM DATA TYPE="STRING" PARAM NAME="RESULTSDOC" />
IN PARAMETERS>
- < OUT PARAMETERS>
SPARAMETER PARAM TYPE="OUT" PARAM CAPTION="RESULTS METADATA"
PARAM DATA TYPE="STRING" PARAM NAME="METADOC" />
PARAMETER PARAM TYPE="OUT" PARAM CAPTION="RESULTS"
PARAM DATA TYPE="STRING" PARAM NAME="RESULTSDOC" />
PARAMETER PARAM TYPE="OUT" PARAM CAPTION="ROW COUNT"
PARAM DATA TYPE="STRING" PARAM NAME="ROWCOUNT" />
 </OUT PARAMETERS>
 </DF DIRECTIVE DEFINITION>
- <DF DIRECTIVE DEFINITION DIRECTIVE ID="TEXTEMAILER" DIRECTIVE NAME="TEXT
EMAILER" THREADING EFFECT="STANDARD" DIRECTIVE TYPE=""
DIRECTIVE DESC="TEXT EMAILER" DIRECTIVE_VENDOR="DPA" DIRECTIVE VERSION="1"
DIRECTIVE CATEGORY="DPA-MISC">
 <DEPLOYMENT SERVICE="DPA DIRECTIVE MGR" MACHINE="SKUNKNT4" PORT="9070" /</p>
```

Gregory L. Maurer, Esq., Klarquist Sparkman, LLP, 121 S.W. Salmon Street, Suite 1600, Portland, Oregon 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING EXECUTABLE SEQUENCES TO PROCESS INFORMATION FROM A DATA COLLECTION, Express Mail No.: EL754021250US, Attorney Docket No.: 6115-60713, Page 66 of 103

FIG. 19I

1909

- <IN PARAMETERS> <PARAMETER PARAM TYPE="IN" PARAM CAPTION="SUBJECT EXPRESSION"</p> PARAM DATA TYPE="STRING" PARAM NAME="SUBJECT EXP" /> <PARAMETER PARAM TYPE="IN" PARAM CAPTION="MESSAGE EXPRESSION" PARAM DATA TYPE="STRING" PARAM NAME="MESSAGE EXP" /> <PARAMETER PARAM TYPE="IN" PARAM CAPTION="EMAIL ADDRESSES"</p> PARAM DATA TYPE="STRING" PARAM NAME="EMAIL ADDRESSES" /> <PARAMETER PARAM TYPE="IN" PARAM CAPTION="SEND FROM ADDRESS" PARAM DATA TYPE="STRING" PARAM NAME="FROM ADDRESS" /> <PARAMETER PARAM TYPE="IN" PARAM CAPTION="RESULTS METADATA" PARAM DATA TYPE="STRING" PARAM NAME="METADOC" /> PARAMETER PARAM TYPE="IN" PARAM CAPTION="RESULTS" PARAM DATA TYPE="STRING" PARAM NAME="RESULTSDOC" /> **IN PARAMETERS> -COUT PARAMETERS>** PARAMETER PARAM TYPE="OUT" PARAM CAPTION="ERROR MESSAGES" PARAM DATA TYPE="STRING" PARAM NAME="ERROR" /> **</r>
! !
!
!** //DF DIRECTIVE DEFINITION> Image: Imag

FIG. 20A

</FILTER>

```
- <RESULTS DOC>
- < DP QUERY DEF VERSION="1">
 <DPA IDENTIFIERS DATA SET="NW" WH OWNER NAME="RROC" />
 <HINTS />
- < COLUMN DEFS>
 <COLUMN DEF COLUMN SORT ATTRIBUTE="NONE"
COLUMN TEXT="VENDOR NAME" TABLE ALIAS="VENDOR D"
COLUMN NAME="VENDOR NAME" COLUMN ALIAS="VENDOR NAME"
COLUMN SORT ORDER="1" COLUMN POSITION="1"
COLUMN TYPE="GROUP BY" />
 <COLUMN DEF COLUMN SORT ATTRIBUTE="NONE"
COLUMN TEXT="PERIOD KEY" TABLE ALIAS="AP INV DETAIL F"
COLUMN NAME="PERIOD KEY" COLUMN ALIAS="PERIOD KEY"
COLUMN SORT ORDER="2" COLUMN POSITION="2"
COLUMN TYPE="GROUP BY" />
 <COLUMN DEF COLUMN SORT ATTRIBUTE="DESC"
COLUMN TEXT="SUM(AP INV DETAIL F.INVOICE LINE AMOUNT)"
TABLE ALIAS="AP INV DETAIL F"
COLUMN NAME="INVOICE LINE AMOUNT"
COLUMN ALIAS="SUM INVOICE LINE AMOUNT"
COLUMN SORT ORDER="3" COLUMN POSITION="3"
COLUMN TYPE="AGGREGATE" />
 </COLUMN DEFS>
- <TABLE DEFS>
 <TABLE DEF TABLE ALIAS="AP INV DETAIL F"
TABLE NAME="AP INV DETAIL F" />
 <TABLE DEF TABLE ALIAS="VENDOR D" TABLE NAME="VENDOR D" /
 </TABLE DEFS>
- <DETAIL FILTERS>
- <FILTER FILTER TYPE="VALUE" COLUMN TEXT="VENDOR TYPE"
TABLE ALIAS="VENDOR D" FILTER PREC OPER="AND"
FILTER OPERATOR="=">
 <FILTER VALUE VALUE DATA TYPE="STRING">EMPLOYEE
FILTER VALUE>
```

FIG. 20B

2002

- <FILTER FILTER_TYPE="VALUE" COLUMN_TEXT="COMPANY_KEY" TABLE_ALIAS="AP_INV_DETAIL_F" FILTER_PREC_OPER="AND" FILTER OPERATOR="="> <FILTER_VALUE VALUE_DATA_TYPE="STRING">01</FILTER_VALUE> </FILTER> </DETAIL FILTERS> - <AGGREGATE FILTERS> - <FILTER FILTER TYPE="VALUE" COLUMN_TEXT="SUM(INVOICE_LINE_AMOUNT)" TABLE_ALIAS="AP_INV_DETAIL_F" FILTER_PREC_OPER="AND" FILTER OPERATOR=">"> <FILTER_VALUE VALUE_DATA_TYPE="NUMBER">0</FILTER_VALUE> </FILTER> </AGGREGATE FILTERS> </DP_QUERY DEF> <DPA_QUERY_SERVER_INFO SERVICE="DPA_QUERY_SERVER"</pre> MACHINE="EXH 2K" PORT="8069" WAREHOUSE_SERVER="HD.DPAPPLICATIONS.COM" WAREHOUSE DBNAME="DEMO30" WAREHOUSE OWNER="RROC">FOODADDY</ DPA QUERY SERVER INFO> - <DP DS METADATA> <DP_COLUMN COLUMN_NAME="VENDOR NAME"</pre> COLUMN_DATA_TYPE="VARCHAR2" COLUMN_DS_ALIAS="C1" COLUMN_TYPE="GROUP_BY" COLUMN_SORT_ATTRIBUTE="NONE" COLUMN SOURCE ALIAS="VENDOR NAME" COLUMN_LABEL="VENDOR NAME" COLUMN_DESC="" COLUMN_IS_CURRENCY="N" /> <DP_COLUMN COLUMN_NAME="PERIOD_KEY"</pre> COLUMN_DATA_TYPE="VARCHAR2" COLUMN_DS_ALIAS="C2" COLUMN_TYPE="GROUP_BY" COLUMN_SORT_ATTRIBUTE="NONE" COLUMN_SOURCE_ALIAS="PERIOD_KEY" COLUMN_LABEL="PERIOD KEY" COLUMN_DESC="" COLUMN_IS_CURRENCY="N" /> <DP_COLUMN COLUMN_NAME="SUM_INVOICE_LINE AMOUNT"</pre> COLUMN_DATA_TYPE="NUMBER" COLUMN_DS_ALIAS="C3" COLUMN_TYPE="AGGREGATE" COLUMN_SORT_ATTRIBUTE="DESC" COLUMN_SOURCE_ALIAS="SUM_INVOICE_LINE_AMOUNT" COLUMN_LABEL="INVOICE LINE AMOUNT" COLUMN_DESC="" COLUMN IS CURRENCY="Y" />

2003

```
</DP DS METADATA>
- <DP DS>
- <R>
 <C1>JAMIE FROST</C1>
<C2>DEC-97</C2>
 <C3>28159</C3>
 </R>
- <R>
 <C1>JAMIE FROST</C1>
 <C2>JAN-98</C2>
 <C3>15114.76</C3>
 </R>
- <R>
 <C1>JAMIE FROST</C1>
 <C2>FEB-98</C2>
 <C3>4417.86</C3>
 </R>
- <R>
 <C1>KERRY JONES</C1>
 <C2>APR-98</C2>
 <C3>3439.10</C3>
 </R>
- <R>
 <C1>KERRY JONES</C1>
 <C2>DEC-97</C2>
 <C3>3263</C3>
 </R>
- <R>
 <C1>JAMIE FROST</C1>
 <C2>NOV-97</C2>
 <C3>2907.85</C3>
 </R>
- <R>
 <C1>KERRY JONES</C1>
 <C2>FEB-98</C2>
 <C3>2799.31</C3>
```

T.

M

</R>

FIG. 20D

- <R>

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2004

<C1>KERRY JONES</C1> <C2>MAY-98</C2> <C3>2698.64</C3> </R>- <R> <C1>JAMIE FROST</C1> <C2>APR-98</C2> <C3>2657.20</C3> </R> - <R> <C1>JAMIE FROST</C1> <C2>MAY-98</C2> <C3>2549.68</C3> </R>- <R> <C1>KERRY JONES</C1> <C2>MAR-98</C2> <C3>2511.98</C3> </R>- <R> <C1>JAMIE FROST</C1> <C2>MAR-98</C2> <C3>2459.87</C3> </R>- <R> <C1>JAMIE FROST</C1> <C2>JUN-98</C2> <C3>2219.90</C3> </R>- <R> <C1>KERRY JONES</C1>

<C2>JUN-98</C2><C3>2182.29</C3>

<C2>JAN-98</C2><C3>1516</C3>

<C1>KERRY JONES</C1>

</R>

</R>

2005

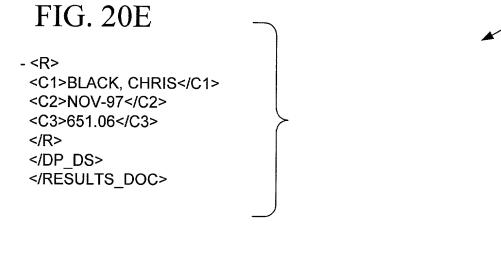


FIG. 21A

2101

- <DF WORKFLOW VERSION="1"> <DF_WORKFLOW_HEADER DF_EDITOR_MAX_ID="172" FLOW_NAME="QTY ANALYSIS"</pre> FLOW DESCRIPTION="QTY ANALYSIS FLOW" FLOW STATUS="FLOW STATUS" FLOW NOTES="" FLOW AUTHOR="FLOW AUTHOR" /> - <DF WORKFLOW PARAMETERS> - <PARAMETER NODE ID="13" PARAM DATA TYPE="STRING" PARAM CAPTION="CONNECT STRING" PARAM NAME="CONNECT STRING" PARAM TYPE="OUT"> <PARAM SOURCE PARAM TYPE="VALUE">JDBC:ORACLE:THIN:@172.16.1.34:1521:DEMO30</ PARAM SOURCE> </PARAMETER> - <PARAMETER NODE ID="14" PARAM DATA TYPE="STRING" PARAM CAPTION="DATABASE USER NAME" PARAM NAME="USER NAME" PARAM TYPE="OUT"> PARAM SOURCE PARAM TYPE="VALUE">RROC609</PARAM SOURCE> </PARAMETER> PARAMETER NODE_ID="15" PARAM_DATA_TYPE="STRING" PARAM CAPTION="DATABASE PASSWORD" PARAM NAME="USER PWD" PARAM TYPE="OUT"> PARAM SOURCE PARAM TYPE="VALUE">DPA</PARAM SOURCE> </PARAMETER> PARAMETER NODE ID="16" PARAM DATA TYPE="STRING" PARAM CAPTION="OWNERNAME" PARAM NAME="OWNERNAME" PARAM TYPE="OUT"> PARAM_SOURCE PARAM_TYPE="VALUE">QTY_ANALYSIS</PARAM_SOURCE> /PARAMETER> - <PARAMETER NODE ID="17" PARAM DATA TYPE="STRING" PARAM CAPTION="CURRENT PERIOD" PARAM NAME="CURRPERIOD" PARAM TYPE="OUT"> <PARAM SOURCE PARAM TYPE="VALUE">(1997-09) SEP-97</PARAM SOURCE> </PARAMETER> </DF WORKFLOW PARAMETERS> - <DF WORKFLOW ACTIVITIES> - <ACTIVITY NODE ID="11"> <ACTIVITY HEADER ACTIVITY NOTES="ACTIVITY NOTES"</p>

DIRECTIVE_NAME="SCHEDULER" THREADING_EFFECT="SPLIT" DIRECTIVE ID="SB1"

ACTIVITY DESCRIPTION="ACTIVITY DESCRIPTION" />

<ACTIVITY IMPLEMENTATION DIRECTIVE VENDOR="DPA"</p>

DIRECTIVE VERSION="1" DIRECTIVE DESC="SCHEDULE DIRECTIVE" />

Gregory L. Maurer, Esq., Klarquist Sparkman, LLP, 121 S.W. Salmon Street, Suite 1600, Portland, Oregon 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING EXECUTABLE SEQUENCES TO PROCESS INFORMATION FROM A DATA COLLECTION, Express Mail No.: EL754021250US, Attorney Docket No.: 6115-60713, Page 73 of 103

FIG. 21B

2102

- <ACTIVITY IN PARAMETERS>
- <PARAMETER NODE_ID="12" PARAM_DATA_TYPE="STRING"

PARAM_CAPTION="FREQUENCY" PARAM_NAME="FREQUENCY" PARAM_TYPE="IN">

- <PARAM_SOURCE PARAM_TYPE="VALUE">0</PARAM_SOURCE>
- </PARAMETER>
- </ACTIVITY IN PARAMETERS>
- <ACTIVITY OUT PARAMETERS />
- </ACTIVITY>
- <ACTIVITY NODE ID="18">
- <ACTIVITY_HEADER ACTIVITY NOTES="ACTIVITY NOTES"</pre>

ACTIVITY_DESCRIPTION="ACTIVITY DESCRIPTION" />

- <ACTIVITY_IMPLEMENTATION DIRECTIVE_VENDOR="DPA" DIRECTIVE_NAME="CLEAR STORED RESULTS" THREADING_EFFECT="STANDARD" DIRECTIVE_ID="CRB1" DIRECTIVE_TYPE="" DIRECTIVE_VERSION="1" DIRECTIVE_DESC="REMOVE PREVIOUS RESULT SETS FROM REPOSITORY" />
- ACTIVITY IN PARAMETERS>
- PARAMETER NODE_ID="19" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="OWNER ID" PARAM NAME="OWNERID" PARAM TYPE="IN">
- PARAM_SOURCE PARAM_TYPE="ID">16</PARAM_SOURCE>
- </PARAMETER>
- PARAMETER NODE_ID="20" PARAM DATA TYPE="STRING"
- PARAM_CAPTION="RESULTNAME" PARAM_NAME="RESULTNAME" PARAM_TYPE="IN">
 PARAM_SOURCE PARAM_TYPE="VALUE">*</PARAM_SOURCE>
 - **≤/PARAMETER>**
 - SACTIVITY_IN PARAMETERS>
 - **CACTIVITY OUT PARAMETERS />**
 - ₹/ACTIVITY>
- <ACTIVITY NODE ID="21">
- <a href="ACTIVITY_HEADER ACTIVITY_NOTES" ACTIVITY_NOTES"

ACTIVITY DESCRIPTION="ACTIVITY DESCRIPTION" />

<ACTIVITY_IMPLEMENTATION DIRECTIVE_VENDOR="DPA" DIRECTIVE_NAME="CLEAR PUBLISHED PAGES" THREADING_EFFECT="STANDARD" DIRECTIVE_ID="CRC1" DIRECTIVE_TYPE="" DIRECTIVE_VERSION="1" DIRECTIVE_DESC="REMOVE PREVIOUS PUBLISHED PAGES FROM REPOSITORY" />

FIG. 21C

</PARAMETER>

2103

```
- <ACTIVITY IN PARAMETERS>
- <PARAMETER NODE ID="22" PARAM_DATA_TYPE="STRING"
PARAM CAPTION="OWNERID" PARAM NAME="OWNERID" PARAM TYPE="IN">
 <PARAM SOURCE PARAM TYPE="ID">16</PARAM SOURCE>
 </PARAMETER>
- <PARAMETER NODE_ID="23" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="PAGE
NAME" PARAM NAME="PAGENAME" PARAM TYPE="IN">
 <PARAM SOURCE PARAM TYPE="VALUE">*</PARAM SOURCE>
 </PARAMETER>
 </ACTIVITY IN PARAMETERS>
 <ACTIVITY OUT PARAMETERS />
 </ACTIVITY>
- <ACTIVITY NODE ID="26">
 <ACTIVITY HEADER ACTIVITY NOTES="ACTIVITY NOTES"</p>
ACTIVITY DESCRIPTION="DETAIL QUERY" />
SACTIVITY IMPLEMENTATION DIRECTIVE_VENDOR="DPA" DIRECTIVE_NAME="DATA
DIRECTIVE" THREADING_EFFECT="STANDARD" DIRECTIVE_ID="DB3"
DIRECTIVE VERSION="1" DIRECTIVE_DESC="RETRIEVE DATA AND ASSEMBLE INTO
RESULT SET" />
-<a>ACTIVITY IN PARAMETERS></a>
PARAM CAPTION="SQL" PARAM NAME="SQL" PARAM TYPE="IN">
SPARAM_SOURCE PARAM_TYPE="VALUE">SELECT
NW_COMPONENT_ITEM_D.COMPONENT ITEM DESC
©MPONENT ITEM DESC, SUM(NW DISC SHORTAGE F.QUANTITY ISSUED)
QUANTITY ISSUED, SUM(NW DISC SHORTAGE F.QUANTITY ON HAND)
QUANTITY_ON_HAND, SUM(NW_DISC SHORTAGE F.QUANTITY SHORT)
QUANTITY SHORT, SUM(NW DISC SHORTAGE F. REQUIRED QUANTITY)
REQUIRED QUANTITY FROM NW_COMPONENT_ITEM_D_0
NW_COMPONENT ITEM D,NW DISC SHORTAGE F 0
NW DISC SHORTAGE F,NW ORG PERIOD D 0
NW_ORG_PERIOD_D,NW_WIP_ENTITY_D_0 NW_WIP_ENTITY_D WHERE
NW DISC SHORTAGE F.COMPONENT ITEM KEY =
NW COMPONENT ITEM D.COMPONENT ITEM KEY AND
NW_DISC_SHORTAGE_F.ORG_PERIOD_KEY = NW_ORG_PERIOD_D.ORG_PERIOD_KEY
AND NW_DISC_SHORTAGE_F.WIP_ENTITY_KEY = NW_WIP_ENTITY_D.WIP_ENTITY_KEY
AND NW ORG PERIOD D.ORG PERIOD = '#P1#' GROUP BY
NW COMPONENT ITEM D.COMPONENT ITEM DESC HAVING
SUM(NW DISC SHORTAGE F.REQUIRED QUANTITY) > 0 ORDER BY
```

REQUIRED_QUANTITY DESC, COMPONENT_ITEM_DESC, REQUIRED_QUANTITY, QUANTITY_ISSUED, QUANTITY_SHORT, QUANTITY_ON_HAND</PARAM_SOURCE>

FIG. 21D

- <PARAMETER NODE_ID="28" PARAM_DATA_TYPE="STRING"
 PARAM_CAPTION="CONNECTION STRING" PARAM_NAME="CONNECTION_STRING"
 PARAM_TYPE="IN">
- <PARAM SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
- </PARAMETER>
- <PARAMETER NODE_ID="29" PARAM_DATA_TYPE="STRING"
 PARAM_CAPTION="DATABASE USER NAME" PARAM_NAME="USERNAME"
 PARAM_TYPE="IN">
 - <PARAM_SOURCE PARAM_TYPE="ID">14</PARAM_SOURCE>
- </parameter>
 <PARAMETER NODE ID="30" PARAM DATA TYPE="STRING"</pre>
- PARAM_CAPTION="DATABASE PASSWORD" PARAM_NAME="PWD" PARAM_TYPE="IN">
 <PARAM_SOURCE PARAM_TYPE="ID">15</PARAM_SOURCE>
 </PARAMETER>
- PARAMETER NODE_ID="31" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P1" PARAM NAME="P1" PARAM TYPE="IN">
 - PARAM_SOURCE PARAM_TYPE="ID">17</PARAM_SOURCE>
 - </PARAMETER>
- PARAMETER NODE_ID="32" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P2" PARAM_NAME="P2" PARAM_TYPE="IN">
- PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
- |/PARAMETER>
- -- PARAMETER NODE_ID="33" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P3" PARAM_NAME="P3" PARAM_TYPE="IN">
- FPARAM_SOURCE PARAM_TYPE="ID">13
- /PARAMETER>
- → PARAMETER NODE_ID="34" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P4" PARAM NAME="P4" PARAM TYPE="IN">
 - <PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
 - </PARAMETER>
- <PARAMETER NODE_ID="35" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P5"
 PARAM NAME="P5" PARAM_TYPE="IN">
 - <PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
 - </PARAMETER>
 - </ACTIVITY_IN_PARAMETERS>

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FIG. 21E

</PARAMETER>

2105

- <ACTIVITY OUT PARAMETERS> - <PARAMETER NODE_ID="36" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT DATA" PARAM_NAME="RESULTSET" PARAM_TYPE="OUT"> <PARAM SOURCE /> </PARAMETER> - <PARAMETER NODE_ID="37" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT METADATA" PARAM_NAME="RESULTMETADATA" PARAM_TYPE="OUT"> <PARAM SOURCE /> </PARAMETER> </ACTIVITY_OUT_PARAMETERS> </ACTIVITY> - <ACTIVITY NODE ID="39"> <activity header activity_notes="activity notes" ACTIVITY DESCRIPTION="TREND QUERY" /> ACTIVITY_IMPLEMENTATION DIRECTIVE_VENDOR="DPA" DIRECTIVE_NAME="DATA DIRECTIVE" THREADING_EFFECT="STANDARD" DIRECTIVE_ID="DB3" DRECTIVE_VERSION="1" DIRECTIVE_DESC="RETRIEVE DATA AND ASSEMBLE INTO RESULT SET" /> *ACTIVITY IN PARAMETERS> ➡PARAMETER NODE_ID="40" PARAM_DATA_TYPE="PARAMITERIZED SQL STRING" PARAM_CAPTION="SQL" PARAM NAME="SQL" PARAM TYPE="IN"> ≤PARAM_SOURCE PARAM_TYPE="VALUE">SELECT NW_ORG_PERIOD_D.ORG_PERIOD ERIOD_NAME,SUM(NW_DISC_SHORTAGE_F.QUANTITY_ISSUED) QUANTITY_ISSUED,SUM(NW_DISC_SHORTAGE_F.QUANTITY_ON_HAND) QUANTITY_ON_HAND,SUM(NW_DISC_SHORTAGE_F.QUANTITY_SHORT) QUANTITY_SHORT,SUM(NW_DISC_SHORTAGE_F.REQUIRED_QUANTITY) REQUIRED_QUANTITY FROM NW_DISC_SHORTAGE_F_0 NW_DISC_SHORTAGE_F, NW ORG PERIOD D 0 NW ORG PERIOD D WHERE NW_DISC_SHORTAGE_F.ORG_PERIOD_KEY = NW_ORG_PERIOD_D.ORG_PERIOD_KEY GROUP BY NW_ORG_PERIOD_D.ORG_PERIOD ORDER BY PERIOD_NAME DESC</ PARAM SOURCE> </PARAMETER> - <PARAMETER NODE_ID="41" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="CONNECTION STRING" PARAM_NAME="CONNECTION_STRING" PARAM TYPE="IN">

<PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>

FIG. 21F

2106

- <PARAMETER NODE_ID="42" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="DATABASE USER NAME" PARAM_NAME="USERNAME" PARAM TYPE="IN"> <PARAM_SOURCE PARAM_TYPE="ID">14</PARAM_SOURCE> </PARAMETER> - <PARAMETER NODE ID="43" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="DATABASE PASSWORD" PARAM_NAME="PWD" PARAM_TYPE="IN"> <PARAM_SOURCE PARAM_TYPE="ID">15</PARAM_SOURCE> </PARAMETER> - <PARAMETER NODE_ID="44" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P1" PARAM NAME="P1" PARAM TYPE="IN"> <PARAM_SOURCE PARAM_TYPE="ID">17</PARAM_SOURCE> *≤*/PARAMETER> PARAM NAME="P2" PARAM TYPE="IN"> SPARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE> /PARAMETER> PARAMETER NODE_ID="46" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P3" PARAM_NAME="P3" PARAM_TYPE="IN"> <PARAM_SOURCE PARAM_TYPE="ID">13</PARAM SOURCE> /PARAMETER> PARAMETER NODE_ID="47" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P4" PARAM NAME="P4" PARAM TYPE="IN"> PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE> </PARAMETER> PARAMETER NODE_ID="48" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P5" PARAM NAME="P5" PARAM TYPE="IN"> <PARAM SOURCE PARAM TYPE="ID">13</PARAM SOURCE> </PARAMETER> </ACTIVITY IN PARAMETERS> - <ACTIVITY OUT PARAMETERS> - <PARAMETER NODE_ID="49" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT DATA" PARAM_NAME="RESULTSET" PARAM_TYPE="OUT">
- <PARAMETER NODE_ID="50" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT
 METADATA" PARAM_NAME="RESULTMETADATA" PARAM_TYPE="OUT">
 <PARAM_SOURCE />
 </PARAMETER>
 - </ACTIVITY OUT_PARAMETERS>
 - </ACTIVITY>

<PARAM SOURCE />

</PARAMETER>

FIG. 21G

2107

- <ACTIVITY NODE_ID="52"> <activity_header activity_notes="activity notes" ACTIVITY_DESCRIPTION="SUMMARY QUERY" /> <activity implementation directive_vendor="dpa" directive_name="data" DIRECTIVE" THREADING EFFECT="STANDARD" DIRECTIVE_ID="DB3" DIRECTIVE_VERSION="1" DIRECTIVE_DESC="RETRIEVE DATA AND ASSEMBLE INTO RESULT SET" /> - <ACTIVITY IN PARAMETERS> - <PARAMETER NODE_ID="53" PARAM_DATA_TYPE="PARAMITERIZED SQL STRING" PARAM_CAPTION="SQL" PARAM_NAME="SQL" PARAM_TYPE="IN"> <PARAM SOURCE PARAM TYPE="VALUE">SELECT NW_COMPONENT_ITEM_D.COMPONENT_ITEM_DESC COMPONENT_ITEM_DESC,SUM(NW_DISC_SHORTAGE_F.QUANTITY_ISSUED) QUANTITY_ISSUED,SUM(NW_DISC_SHORTAGE_F.QUANTITY_ON_HAND) QUANTITY_ON_HAND,SUM(NW_DISC_SHORTAGE F.QUANTITY SHORT) QUANTITY SHORT, SUM(NW_DISC_SHORTAGE_F.REQUIRED_QUANTITY) REQUIRED_QUANTITY FROM NW_COMPONENT_ITEM_D 0 NW COMPONENT_ITEM_D,NW_DISC_SHORTAGE_F_0 NW_DISC_SHORTAGE_F,NW_ORG_PERIOD_D_0 NW_ORG_PERIOD_D,NW_WIP_ENTITY_D_0 NW_WIP_ENTITY_D WHERE NW DISC SHORTAGE F.COMPONENT_ITEM_KEY = NW_COMPONENT_ITEM_D.COMPONENT_ITEM_KEY AND DISC_SHORTAGE_F.ORG_PERIOD_KEY = NW_ORG_PERIOD_D.ORG_PERIOD_KEY AND NW_DISC_SHORTAGE_F.WIP_ENTITY_KEY = NW_WIP_ENTITY_D.WIP_ENTITY_KEY AND NW_ORG_PERIOD_D.ORG_PERIOD = '#P1#' GROUP BY NW COMPONENT_ITEM_D.COMPONENT_ITEM_DESC HAVING SUM(NW_DISC_SHORTAGE_F.REQUIRED_QUANTITY) > 0 ORDER BY REQUIRED_QUANTITY DESC, COMPONENT_ITEM_DESC, REQUIRED_QUANTITY, QUANTITY_ISSUED, QUANTITY_SHORT, QUANTITY_ON_HAND</PARAM_SOURCE> </PARAMETER> - <PARAMETER NODE_ID="54" PARAM_ DATA TYPE="STRING" PARAM_CAPTION="CONNECTION STRING" PARAM_NAME="CONNECTION_STRING" PARAM TYPE="IN"> <PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE> </PARAMETER> - <PARAMETER NODE ID="55" PARAM_DATA_TYPE="STRING" PARAM CAPTION="DATABASE USER NAME" PARAM NAME="USERNAME" PARAM TYPE="IN"> <PARAM_SOURCE PARAM_TYPE="ID">14</PARAM_SOURCE> </PARAMETER>

FIG. 21H

- <PARAMETER NODE_ID="56" PARAM_DATA_TYPE="STRING"
 PARAM_CAPTION="DATABASE PASSWORD" PARAM_NAME="PWD" PARAM_TYPE="IN">
 <PARAM_SOURCE PARAM_TYPE="ID">15</PARAM_SOURCE>
 </PARAMETER>
- <PARAMETER NODE_ID="57" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P1" PARAM_NAME="P1" PARAM_TYPE="IN">
 - <PARAM_SOURCE PARAM_TYPE="ID">17</PARAM_SOURCE>
 </PARAMETER>
- <PARAMETER NODE_ID="58" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P2" PARAM_NAME="P2" PARAM_TYPE="IN">
 - <PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
- </parameter>
 <PARAMETER NODE_ID="59" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P3"
 PARAM_NAME="P3" PARAM_TYPE="IN">
- PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
- >/PARAMETER>
- PARAMETER NODE_ID="60" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P4" PARAM_NAME="P4" PARAM_TYPE="IN">
- PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
- **S/PARAMETER>**
- -<PARAMETER NODE_ID="61" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P5" PARAM_NAME="P5" PARAM_TYPE="IN">
- ☑PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
- */PARAMETER>
- **ACTIVITY_IN_PARAMETERS>**
- <ACTIVITY_OUT_PARAMETERS>
- <PARAMETER NODE_ID="62" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT DATA" PARAM_NAME="RESULTSET" PARAM_TYPE="OUT">
 - <PARAM_SOURCE />
 - </PARAMETER>
- <PARAMETER NODE_ID="63" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT METADATA" PARAM_NAME="RESULTMETADATA" PARAM_TYPE="OUT">
 - <PARAM SOURCE />
 - </PARAMETER>
 - </ACTIVITY_OUT_PARAMETERS>
 - </ACTIVITY>

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FIG. 21I

2109

- <ACTIVITY_IN_PARAMETERS>
- <PARAMETER NODE_ID="66" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT SET OWNER" PARAM_NAME="OWNER" PARAM_TYPE="IN">
- <PARAM_SOURCE PARAM_TYPE="ID">16</PARAM_SOURCE>
- </PARAMETER>
- <PARAMETER NODE_ID="67" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT SET" PARAM_NAME="RESULTSET" PARAM_TYPE="IN">
- ZPARAM SOURCE PARAM_TYPE="ID">36</PARAM_SOURCE>
- **PARAMETER>**
- PARAMETER NODE_ID="68" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT SET METADATA" PARAM_NAME="RESULTMETADATA" PARAM_TYPE="IN">
 - PARAM_SOURCE PARAM_TYPE="ID">37</PARAM_SOURCE>
 - </PARAMETER>
- -SPARAMETER NODE_ID="69" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT SET NAME" PARAM_NAME="RESULTNAME" PARAM_TYPE="IN">
- PARAM_SOURCE PARAM_TYPE="VALUE">DETAIL</PARAM_SOURCE>
- S/PARAMETER>
- **S/ACTIVITY IN PARAMETERS>**
- ACTIVITY OUT PARAMETERS>
- -≤PARAMETER NODE_ID="70" PARAM_DATA_TYPE="STRING"
- PARAM_CAPTION="RESULTSET ID" PARAM_NAME="RESULTSETID" PARAM_TYPE="OUT">
 <PARAM_SOURCE />
 - </PARAMETER>
 - </ACTIVITY_OUT_PARAMETERS>
 - </ACTIVITY>
- <ACTIVITY NODE_ID="72">
- <activity_header activity_notes="activity notes"
- ACTIVITY_DESCRIPTION="ACTIVITY DESCRIPTION" />
 - <activity_implementation directive_vendor="dpa"
- THREADING_EFFECT="STANDARD" DIRECTIVE_NAME="SAVE RESULTS"
- DIRECTIVE_ID="SR1" DIRECTIVE_TYPE="" DIRECTIVE_VERSION="1"
- DIRECTIVE_DESC="SAVES RESULTS TO REPOSITORY" />

FIG. 21J

- <ACTIVITY IN PARAMETERS>
- <PARAMETER NODE_ID="73" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT SET OWNER" PARAM_NAME="OWNER" PARAM_TYPE="IN">
- <PARAM_SOURCE PARAM_TYPE="ID">16</PARAM_SOURCE>
- </PARAMETER>
- <PARAMETER NODE_ID="74" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT SET" PARAM_NAME="RESULTSET" PARAM_TYPE="IN">
 - <PARAM_SOURCE PARAM_TYPE="ID">49</PARAM_SOURCE>
 - </PARAMETER>
- <PARAMETER NODE_ID="75" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT SET METADATA" PARAM_NAME="RESULTMETADATA" PARAM_TYPE="IN">
- <PARAM_SOURCE PARAM_TYPE="ID">50</PARAM_SOURCE>
- </PARAMETER>
- PARAMETER NODE_ID="76" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT SET NAME" PARAM_NAME="RESULTNAME" PARAM_TYPE="IN">
- PARAM_SOURCE PARAM_TYPE="VALUE">TREND</PARAM_SOURCE>
- /PARAMETER>
- </ACTIVITY_IN_PARAMETERS>
- ACTIVITY OUT_PARAMETERS>
- -- PARAMETER NODE_ID="77" PARAM_DATA_TYPE="STRING"
- PARAM_CAPTION="RESULTSET ID" PARAM_NAME="RESULTSETID" PARAM_TYPE="OUT">
 PARAM_SOURCE />
- PARAMETER>
- </ACTIVITY_OUT_PARAMETERS>
- **Z/ACTIVITY>**
- -- ACTIVITY NODE_ID="79">
- <ACTIVITY_HEADER ACTIVITY_NOTES="ACTIVITY NOTES"</pre>
- ACTIVITY_DESCRIPTION="ACTIVITY DESCRIPTION" />
- <activity implementation directive_vendor="dpa"
- THREADING _EFFECT="STANDARD" DIRECTIVE_NAME="SAVE RESULTS"
- DIRECTIVE_ID="SR1" DIRECTIVE_TYPE="" DIRECTIVE_VERSION="1"
- DIRECTIVE_DESC="SAVES RESULTS TO REPOSITORY" />
- <ACTIVITY_IN_PARAMETERS>
- <PARAMETER NODE_ID="80" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT SET OWNER" PARAM_NAME="OWNER" PARAM_TYPE="IN">
- <PARAM_SOURCE PARAM_TYPE="ID">16</PARAM_SOURCE>
- </PARAMETER>

FIG. 21K

- <PARAMETER NODE_ID="81" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT SET" PARAM NAME="RESULTSET" PARAM TYPE="IN"> <PARAM_SOURCE PARAM_TYPE="ID">62</PARAM_SOURCE> </PARAMETER> - <PARAMETER NODE_ID="82" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT SET METADATA" PARAM_NAME="RESULTMETADATA" PARAM_TYPE="IN"> <PARAM_SOURCE PARAM_TYPE="ID">63</PARAM_SOURCE> </PARAMETER> - <PARAMETER NODE_ID="83" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT SET NAME" PARAM_NAME="RESULTNAME" PARAM_TYPE="IN"> <PARAM_SOURCE PARAM_TYPE="VALUE">SUMMARY</PARAM_SOURCE> </PARAMETER> **MACTIVITY IN PARAMETERS>** - ACTIVITY OUT PARAMETERS> - PARAMETER NODE ID="84" PARAM DATA TYPE="STRING" PARAM CAPTION="RESULTSET ID" PARAM_NAME="RESULTSETID" PARAM_TYPE="OUT"> <PARAM SOURCE /> </PARAMETER> **ACTIVITY_OUT_PARAMETERS>** </ACTIVITY> -SACTIVITY NODE ID="87"> ACTIVITY_HEADER ACTIVITY_NOTES="ACTIVITY NOTES" ACTIVITY DESCRIPTION="ACTIVITY DESCRIPTION" /> SACTIVITY_IMPLEMENTATION DIRECTIVE_VENDOR="DPA" THREADING EFFECT="STANDARD" DIRECTIVE NAME="PUBLISH PAGE" DIRECTIVE_ID="CR2" DIRECTIVE_TYPE="" DIRECTIVE_VERSION="1" DIRECTIVE DESC="PUBLISHES PAGE & GRANTS SECURITY" /> - <ACTIVITY IN PARAMETERS> - <PARAMETER NODE ID="88" PARAM_DATA_TYPE="STRING" PARAM CAPTION="GRANT SECURITY LIST" PARAM NAME="SECDOC" PARAM TYPE="IN"> <PARAM_SOURCE PARAM_TYPE="ID">162</PARAM_SOURCE> </PARAMETER> - <PARAMETER NODE_ID="89" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="METADATA FOR SECDOC" PARAM_NAME="SECMETA" PARAM TYPE="IN"> <PARAM_SOURCE PARAM_TYPE="ID">163</PARAM_SOURCE> </PARAMETER>
- <PARAMETER NODE_ID="90" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="GRANT SECURITY LIST" PARAM_NAME="SECCOLNAME" PARAM_TYPE="IN"> <PARAM_SOURCE PARAM_TYPE="VALUE">USERNAME</PARAM_SOURCE> </PARAMETER>

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FIG. 21L

- <PARAMETER NODE_ID="91" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="PAGE OWNER" PARAM_NAME="OWNER" PARAM_TYPE="IN"> <PARAM_SOURCE PARAM_TYPE="ID">16</PARAM_SOURCE> </PARAMETER>
- <PARAMETER NODE_ID="92" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="PAGE NAME" PARAM_NAME="PAGENAME" PARAM_TYPE="IN"> <PARAM_SOURCE PARAM_TYPE="VALUE">STARTPAGE</PARAM_SOURCE> </PARAMETER>
- <PARAMETER NODE_ID="93" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="PAGE SLICE NAME" PARAM_NAME="PAGESLICENAME" PARAM_TYPE="IN"> <PARAM_SOURCE PARAM_TYPE="VALUE">FIRST</PARAM_SOURCE> </PARAMETER>
- </PARAMETER> - <PARAMETER NODE_ID="94" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="PAGE DEFINITION" PARAM_NAME="PAGEDEFN" PARAM_TYPE="IN"> PARAM_SOURCE PARAM_TYPE="VALUE"><DP_PAGE_DEF><LAYER LAYER_TYPE="HORIZONTAL" LAYER_BORDER="0" LAYER_PADDING="3" LAYER_HEIGHT="100%" LAYER_WIDTH="100%"><LAYER LAYER_TYPE="VERTICAL" LAYER PADDING="3" LAYER_BORDER="0" LAYER_HEIGHT="225" LAYER_WIDTH="100%"><LAYER_LAYER_TYPE="WIDGET" LAYER_HEIGHT="100%" LAYER_WIDTH="50%"><WIDGET WIDGET_ID="DP_PIE_CHART"><PARAMETERS><PARAM PARAM_NAME="TITLE">MY PIE</PARAM><PARAM PARAM_NAME="DSID">#P3#</ P-ARAM><PARAM PARAM_NAME="VALUECOL">REQUIRED_QUANTITY</PARAM><PARAM PARAM_NAME="LABELCOL">COMPONENT_ITEM_DESC</PARAM><PARAM PARAM_NAME="FILTERTYPE">TOP</PARAM><PARAM PARAM_NAME="FILTERVAL">10</ PARAM></PARAMETERS></WIDGET></LAYER><LAYER LAYER_TYPE="WIDGET" LAYER HEIGHT="100%" LAYER WIDTH="50%"><WIDGET WIDGET_ID="DP_BAR_CHART2"><PARAMETERS><PARAM PARAM_NAME="TITLE">MY CHART TITLE</PARAM><PARAM PARAM_NAME="DSID">#P2#</PARAM><PARAM PARAM_NAME="MEASURECOLS">QUANTITY_ON_HAND|QUANTITY_ISSUED|QUANTITY_SH ORT|REQUIRED_QUANTITY</PARAM><PARAM PARAM_NAME="XAXISLABELS">ON HANDIISSUEDISHORTIREQUIRED</PARAM><PARAM PARAM_NAME="SERIESCOL">PERIOD_NAME</PARAM></PARAMETERS></WIDGET></ LAYER></LAYER><LAYER LAYER_TYPE="HORIZONTAL" LAYER_BORDER="0" LAYER_PADDING="3" LAYER_HEIGHT="80%" LAYER_WIDTH="100%"><LAYER LAYER_TYPE="WIDGET" LAYER_HEIGHT="100%" LAYER_WIDTH="100%"><WIDGET WIDGET_ID="DP_REPORT_VIEWER"><PARAMETERS><PARAM PARAM_NAME="TITLE">MY TITLE</PARAM> <PARAM PARAM NAME="DSID">#P1#</PARAM></PARAMETERS></ WIDGET></LAYER></LAYER></DP_PAGE_DEF></PARAM_SOURCE> </PARAMETER>
- <PARAMETER NODE_ID="95" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="IN RESULTS KEY" PARAM_NAME="P1" PARAM_TYPE="IN"> <PARAM_SOURCE PARAM_TYPE="ID">70</PARAM_SOURCE> </PARAMETER>

FIG. 21M

- <PARAMETER NODE_ID="96" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="IN RESULTS KEY" PARAM_NAME="P2" PARAM_TYPE="IN">
 - <PARAM_SOURCE PARAM_TYPE="ID">77</PARAM_SOURCE>
 - </PARAMETER>
- <PARAMETER NODE_ID="97" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="IN RESULTS KEY" PARAM_NAME="P3" PARAM_TYPE="IN">
 - <PARAM_SOURCE PARAM_TYPE="ID">84</PARAM_SOURCE>
 - </PARAMETER>
- <PARAMETER NODE_ID="98" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="IN RESULTS KEY" PARAM_NAME="P4" PARAM_TYPE="IN">
 - <PARAM_SOURCE PARAM_TYPE="ID">70</PARAM_SOURCE>
 - </PARAMETER>
- <PARAMETER NODE_ID="99" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="IN RESULTS KEY" PARAM_NAME="P5" PARAM_TYPE="IN">
- PARAM_SOURCE PARAM_TYPE="ID">70</PARAM_SOURCE>
- **PARAMETER>**
- PARAMETER NODE_ID="100" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="IN RESULTS KEY" PARAM_NAME="P6" PARAM_TYPE="IN">
- PARAM SOURCE PARAM TYPE="ID">70</PARAM_SOURCE>
- PARAMETER>
- ACTIVITY IN PARAMETERS>
- -SACTIVITY OUT PARAMETERS>
- PARAMETER NODE_ID="101" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="PAGE ID" PARAM NAME="PAGEID" PARAM_TYPE="OUT">
- SPARAM SOURCE />
- **≥/PARAMETER>**
- ---PARAMETER NODE_ID="102" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="PAGE OWNER" PARAM NAME="OWNER" PARAM_TYPE="OUT">
 - <PARAM SOURCE />
 - </PARAMETER>
- <PARAMETER NODE_ID="103" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="PAGE NAME" PARAM_NAME="PAGENAME" PARAM_TYPE="OUT">
 - <PARAM SOURCE />
 - </PARAMETER>
- <PARAMETER NODE_ID="104" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="PAGE SLICE NAME" PARAM_NAME="PAGESLICENAME" PARAM_TYPE="OUT">
 - <PARAM SOURCE />
 - </PARAMETER>
 - </ACTIVITY_OUT_PARAMETERS>
 - </ACTIVITY>

FIG. 21N

```
- <ACTIVITY NODE ID="108">
<ACTIVITY HEADER ACTIVITY NOTES="ACTIVITY NOTES"
ACTIVITY DESCRIPTION="OUTOF BOUNDS QTY" />
 <activity implementation directive vendor="dpa"
THREADING_EFFECT="STANDARD" DIRECTIVE_NAME="ADVANCED FILTER"
DIRECTIVE ID="ABFILTER" DIRECTIVE_TYPE="" DIRECTIVE_VERSION="1"
DIRECTIVE DESC="FILTER RESULTS" />
- <ACTIVITY IN PARAMETERS>
- <PARAMETER NODE_ID="109" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="FILTER
EXPRESSION" PARAM_NAME="FILTER_EXP" PARAM_TYPE="IN">
 <PARAM_SOURCE PARAM_TYPE="VALUE">#REQUIRED_QUANTITY# > 200</
PARAM SOURCE>
 </PARAMETER>
- SPARAMETER NODE_ID="110" PARAM_DATA_TYPE="STRING"
PÄRAM_CAPTION="RESULTS METADATA" PARAM_NAME="METADOC" PARAM_TYPE="IN">
 PARAM SOURCE PARAM TYPE="ID">63</PARAM_SOURCE>
 ✓PARAMETER>
- PARAMETER NODE ID="111" PARAM DATA_TYPE="STRING"
PARAM_CAPTION="RESULTS" PARAM_NAME="RESULTSDOC" PARAM_TYPE="IN">
 SPARAM SOURCE PARAM TYPE="ID">62</PARAM SOURCE>
 </PARAMETER>
 ZACTIVITY_IN_PARAMETERS>
- ACTIVITY OUT PARAMETERS>
- PARAMETER NODE ID="112" PARAM DATA_TYPE="STRING"
PARAM_CAPTION="RESULTS METADATA" PARAM_NAME="METADOC"
PARAM TYPE="OUT">
 PARAM SOURCE />
 </PARAMETER>
- <PARAMETER NODE_ID="113" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="RESULTS" PARAM_NAME="RESULTSDOC" PARAM_TYPE="OUT">
 <PARAM SOURCE />
 </PARAMETER>
- <PARAMETER NODE_ID="114" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="ROW
COUNT" PARAM_NAME="ROWCOUNT" PARAM TYPE="OUT">
 <PARAM SOURCE />
 </PARAMETER>
 </ACTIVITY OUT PARAMETERS>
 </ACTIVITY>
```

FIG. 210

- <ACTIVITY NODE_ID="116">
- <activity_header activity_notes="activity notes"
- ACTIVITY_DESCRIPTION="ACTIVITY DESCRIPTION" />
- <activity_implementation directive_vendor="dpa"
- THREADING_EFFECT="STANDARD" DIRECTIVE_NAME="TEXT EMAILER"
- DIRECTIVE_ID="TEXTEMAILER" DIRECTIVE_TYPE="" DIRECTIVE_VERSION="1"
- DIRECTIVE_DESC="TEXT EMAILER" />
 <ACTIVITY IN PARAMETERS>
- <PARAMETER NODE ID="117" PARAM DATA TYPE="STRING"
- PARAM_CAPTION="SUBJECT EXPRESSION" PARAM_NAME="SUBJECT_EXP" PARAM_TYPE="IN">
- <PARAM_SOURCE PARAM_TYPE="VALUE">OUT OF BOUNDS QTY CONDITION
- APARAMETER>
- PARAMETER NODE_ID="118" PARAM_DATA_TYPE="STRING"
- PARAM_CAPTION="MESSAGE EXPRESSION" PARAM_NAME="MESSAGE_EXP"
- PARAM TYPE="IN">
- PARAM_SOURCE PARAM_TYPE="VALUE">COMPONENT: #COMPONENT_ITEM_DESC# REQUIRES #REQUIRED QUANTITY# ADDITIONAL UNITS</PARAM_SOURCE>
- </PARAMETER>
- -- PARAMETER NODE_ID="119" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="EMAIL
- ADDRESSES" PARAM_NAME="EMAIL_ADDRESSES" PARAM_TYPE="IN">
- PARAM_SOURCE PARAM_TYPE="VALUE">EXH@DPAPPLICATIONS.COM</
- PARAM_SOURCE>
- **APARAMETER>**
- PARAMETER NODE_ID="120" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="SEND
- FROM ADDRESS" PARAM_NAME="FROM_ADDRESS" PARAM_TYPE="IN">
- <PARAM_SOURCE PARAM_TYPE="VALUE">DF@DPAPPLICATIONS.COM</
- PARAM SOURCE>
- </PARAMETER>
- <PARAMETER NODE_ID="121" PARAM_DATA_TYPE="STRING"
- PARAM_CAPTION="RESULTS METADATA" PARAM_NAME="METADOC" PARAM_TYPE="IN"> <PARAM_SOURCE PARAM_TYPE="ID">112</PARAM_SOURCE>
 - </PARAMETER>
- <PARAMETER NODE_ID="122" PARAM_DATA_TYPE="STRING"
- PARAM_CAPTION="RESULTS" PARAM_NAME="RESULTSDOC" PARAM_TYPE="IN">
 - <PARAM_SOURCE PARAM_TYPE="ID">113</PARAM_SOURCE>
 - </PARAMETER>
 - </ACTIVITY_IN_PARAMETERS>

FIG. 21P

2116

- <ACTIVITY OUT PARAMETERS>
- <PARAMETER NODE_ID="123" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="ERROR MESSAGES" PARAM_NAME="ERROR" PARAM_TYPE="OUT">
 - <PARAM SOURCE />
 - </PARAMETER>
 - </ACTIVITY OUT PARAMETERS>
 - </ACTIVITY>
- <ACTIVITY NODE ID="125">
 - <activity header activity notes="activity notes"

ACTIVITY DESCRIPTION="EMAIL LINK" />

<activity implementation directive vendor="dpa"

THREADING_EFFECT="STANDARD" DIRECTIVE_NAME="SMTP EMAIL DIRECTIVE"

DHRECTIVE_ID="MB2" DIRECTIVE_TYPE="" DIRECTIVE_VERSION="1"

DIRECTIVE DESC="SEND PUBLISHED PAGES" />

- SACTIVITY IN PARAMETERS>
- PARAMETER NODE_ID="126" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="EMAIL

ADDRESSES" PARAM NAME="ADDRDOC" PARAM TYPE="IN">

- SPARAM_SOURCE PARAM_TYPE="ID">162</PARAM_SOURCE>
- <p
- PARAMETER NODE ID="127" PARAM DATA TYPE="STRING"
- PARAM_CAPTION="METADATA FOR ADDRDOC" PARAM_NAME="ADDRMETA"
 PARAM_TYPE="IN">
- PARAM SOURCE PARAM TYPE="ID">163</PARAM SOURCE>
- **₹/PARAMETER>**
- -- PARAMETER NODE_ID="128" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="EMAIL
- COLUMN NAME" PARAM NAME="ADDRCOLNAME" PARAM TYPE="IN">
- <PARAM_SOURCE PARAM_TYPE="VALUE">EMAIL_ADDRESS</PARAM_SOURCE>
- </PARAMETER>
- <PARAMETER NODE_ID="129" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="EMAIL COLUMN NAME" PARAM NAME="IDCOLNAME" PARAM TYPE="IN">
 - <PARAM_SOURCE PARAM_TYPE="VALUE">USERNAME</PARAM_SOURCE>
- <PARAMETER NODE ID="130" PARAM DATA TYPE="STRING"
- PARAM_CAPTION="SUBJECT" PARAM_NAME="SUBJECT" PARAM_TYPE="IN">
- <PARAM_SOURCE PARAM_TYPE="VALUE">QTY ANALYSIS UPDATED</PARAM_SOURCE>
 </PARAMETER>

FIG. 21Q

ASSEMBLE INTO RESULT SET" />

2117

- <PARAMETER NODE_ID="131" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="PAGE OWNER" PARAM_NAME="OWNER" PARAM_TYPE="IN"> <PARAM_SOURCE PARAM_TYPE="ID">102</PARAM_SOURCE> </PARAMETER> - <PARAMETER NODE_ID="132" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="PAGE NAME" PARAM_NAME="PAGENAME" PARAM_TYPE="IN"> <PARAM_SOURCE PARAM_TYPE="ID">103</PARAM_SOURCE> </PARAMETER> - <PARAMETER NODE_ID="133" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="PAGE INSTANCE" PARAM_NAME="PAGEINST" PARAM_TYPE="IN"> <PARAM_SOURCE PARAM_TYPE="ID">104</PARAM_SOURCE> </PARAMETER> - PARAMETER NODE_ID="134" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="MAIL FORMAT" PARAM_NAME="FORMAT" PARAM_TYPE="IN"> PARAM_SOURCE PARAM_TYPE="VALUE">DYNAM</PARAM_SOURCE> /PARAMETER> FROM MAIL ADDRESS" PARAM_NAME="SENDFROM" PARAM_TYPE="IN"> PARAM_SOURCE PARAM_TYPE="VALUE">DF@DPAPPLICATIONS.COM</ PARAM SOURCE> **S/PARAMETER> ACTIVITY IN PARAMETERS> FACTIVITY OUT PARAMETERS>** PARAMETER NODE_ID="136" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="ERROR MESSAGES" PARAM_NAME="ERROR_MSG" PARAM_TYPE="OUT"> <PARAM SOURCE /> </PARAMETER> </ACTIVITY OUT PARAMETERS> </ACTIVITY> - <ACTIVITY NODE ID="152"> <activity_header activity_notes="activity notes" ACTIVITY_DESCRIPTION="ACTIVITY DESCRIPTION" /> <ACTIVITY IMPLEMENTATION DIRECTIVE VENDOR="DPA"</p> THREADING_EFFECT="STANDARD" DIRECTIVE_NAME="DATA DIRECTIVE" DIRECTIVE ID="DB3" DIRECTIVE_VERSION="1" DIRECTIVE_DESC="RETRIEVE DATA AND

FIG. 21R

- <ACTIVITY IN PARAMETERS>
- <PARAMETER NODE_ID="153" PARAM_DATA_TYPE="PARAMITERIZED SQL STRING" PARAM CAPTION="SQL" PARAM NAME="SQL" PARAM TYPE="IN">
- <PARAM_SOURCE PARAM_TYPE="VALUE">SELECT USERNAME,EMAIL_ADDRESS FROM
 OA3.DF_QTYAPP_USERS</PARAM_SOURCE>
 - </PARAMETER>
- <PARAMETER NODE ID="154" PARAM DATA TYPE="STRING"
- PARAM_CAPTION="CONNECTION STRING" PARAM_NAME="CONNECTION_STRING" PARAM TYPE="IN">
 - <PARAM SOURCE
- PARAM_TYPE="VALUE">JDBC:ORACLE:THIN:@HD.DPAPPLICATIONS.COM:1521:NRB816</P>
- </PARAMETER>
- <PARAMETER NODE ID="155" PARAM DATA TYPE="STRING"
- PARAM_CAPTION="DATABASE USER NAME" PARAM_NAME="USERNAME" PARAM_TYPE="IN">
 - PARAM_SOURCE PARAM_TYPE="VALUE">OA3</PARAM_SOURCE>
- </PARAMETER>
- PARAM_CAPTION="DATABASE PASSWORD" PARAM_NAME="PWD" PARAM_TYPE="IN">
 PARAM_SOURCE PARAM_TYPE="VALUE">OA3</PARAM_SOURCE>
- "</PARAMETER>
- ---PARAMETER NODE_ID="157" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P1" PARAM NAME="P1" PARAM TYPE="IN">
- FPARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
- </PARAMETER>
- PARAMETER NODE_ID="158" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P2" PARAM NAME="P2" PARAM TYPE="IN">
- <PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
- </PARAMETER>
- <PARAMETER NODE_ID="159" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P3" PARAM NAME="P3" PARAM TYPE="IN">
 - <PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
 - </PARAMETER>
- <PARAMETER NODE_ID="160" PARAM_DATA_TYPE≈"STRING" PARAM_CAPTION="P4" PARAM NAME="P4" PARAM TYPE="IN">
- <PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
- </PARAMETER>
- <PARAMETER NODE_ID="161" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P5" PARAM_NAME="P5" PARAM_TYPE="IN">
- <PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
- </PARAMETER>
- </ACTIVITY IN PARAMETERS>

FIG. 21S

NOTES="NOTES" />

2119

- <ACTIVITY OUT PARAMETERS> - <PARAMETER NODE ID="162" PARAM DATA TYPE="STRING" PARAM CAPTION="RESULT DATA" PARAM NAME="RESULTSET" PARAM TYPE="OUT"> <PARAM SOURCE /> </PARAMETER> - <PARAMETER NODE ID="163" PARAM DATA TYPE="STRING" PARAM CAPTION="RESULT METADATA" PARAM NAME="RESULTMETADATA" PARAM TYPE="OUT"> <PARAM SOURCE /> </PARAMETER> </ACTIVITY OUT PARAMETERS> </ACTIVITY> JDF WORKFLOW ACTIVITIES> -SDF WORKFLOW TRANSITIONS> STRANSITION NODE ID="24" FROM ACTIVITY ID="11" TO ACTIVITY ID="18" TRANSITION EXPRESSION="" DESCRIPTION="DESCRIPTION" NOTES="NOTES" /> TRANSITION NODE ID="25" FROM ACTIVITY ID="11" TO ACTIVITY ID="21" TRANSITION EXPRESSION="" DESCRIPTION="DESCRIPTION" NOTES="NOTES" /> TRANSITION NODE ID="71" FROM ACTIVITY ID="26" TO ACTIVITY ID="65" TRANSITION EXPRESSION="" DESCRIPTION="DESCRIPTION" NOTES="NOTES" /> ■TRANSITION NODE ID="78" FROM ACTIVITY ID="39" TO ACTIVITY ID="72" TRANSITION EXPRESSION="" DESCRIPTION="DESCRIPTION" NOTES="NOTES" /> TRANSITION NODE ID="85" FROM ACTIVITY ID="52" TO ACTIVITY ID="79" TRANSITION EXPRESSION="" DESCRIPTION="DESCRIPTION" NOTES="NOTES" /> TRANSITION NODE ID="105" FROM ACTIVITY ID="65" TO ACTIVITY ID="87" TRANSITION EXPRESSION="" DESCRIPTION="DESCRIPTION" NOTES="NOTES" /> <TRANSITION NODE ID="106" FROM ACTIVITY ID="72" TO ACTIVITY ID="87" TRANSITION EXPRESSION="" DESCRIPTION="DESCRIPTION" NOTES="NOTES" /> <TRANSITION NODE_ID="107" FROM_ACTIVITY_ID="79" TO_ACTIVITY_ID="87" TRANSITION EXPRESSION="" DESCRIPTION="DESCRIPTION" NOTES="NOTES" /> <TRANSITION NODE ID="115" FROM ACTIVITY ID="52" TO ACTIVITY ID="108" TRANSITION_EXPRESSION="" DESCRIPTION="DESCRIPTION" NOTES="NOTES" /> <TRANSITION NODE ID="124" FROM ACTIVITY ID="108" TO ACTIVITY ID="116" TRANSITION EXPRESSION="#114# > "0"" DESCRIPTION="EMAIL ONLY EXCEPTIONS"

FIG. 21T

2120

<TRANSITION NODE ID="137" FROM ACTIVITY ID="87" TO ACTIVITY ID="125" TRANSITION EXPRESSION="" DESCRIPTION="DESCRIPTION" NOTES="NOTES" /> <TRANSITION NODE ID="164" FROM ACTIVITY ID="18" TO ACTIVITY ID="152" TRANSITION EXPRESSION="" DESCRIPTION="DESCRIPTION" NOTES="NOTES" /> <TRANSITION NODE ID="165" FROM ACTIVITY ID="21" TO ACTIVITY ID="152" TRANSITION EXPRESSION="" DESCRIPTION="DESCRIPTION" NOTES="NOTES" /> <TRANSITION NODE ID="166" FROM ACTIVITY ID="152" TO ACTIVITY ID="26" TRANSITION EXPRESSION="" DESCRIPTION="DESCRIPTION" NOTES="NOTES" /> <TRANSITION NODE_ID="167" FROM_ACTIVITY_ID="152" TO ACTIVITY ID="39" TRANSITION EXPRESSION="" DESCRIPTION="DESCRIPTION" NOTES="NOTES" /> <TRANSITION NODE ID="168" FROM ACTIVITY ID="152" TO ACTIVITY ID="52" TRANSITION EXPRESSION="" DESCRIPTION="DESCRIPTION" NOTES="NOTES" /> DF WORKFLOW TRANSITIONS> - <DF WORKFLOW EDITOR> *ACTIVITY VISUAL EDITING NODE ID="11" YCOORD="140" XCOORD="12" /> ACTIVITY VISUAL EDITING NODE ID="18" YCOORD="330" XCOORD="47" /> ₹ACTIVITY VISUAL EDITING NODE ID="21" YCOORD="50" XCOORD="60" /> ACTIVITY VISUAL EDITING NODE ID="26" YCOORD="200" XCOORD="294" /> ACTIVITY VISUAL EDITING NODE ID="39" YCOORD="70" XCOORD="294" /> ACTIVITY VISUAL EDITING NODE ID="52" YCOORD="320" XCOORD="304" /> *ACTIVITY VISUAL EDITING NODE ID="65" YCOORD="200" XCOORD="408" /> SACTIVITY VISUAL EDITING NODE ID="72" YCOORD="70" XCOORD="408" /> SACTIVITY VISUAL EDITING NODE ID="79" YCOORD="320" XCOORD="428" /> ACTIVITY VISUAL EDITING NODE ID="87" YCOORD="200" XCOORD="537" /> ₹ACTIVITY VISUAL EDITING NODE ID="108" YCOORD="430" XCOORD="359" /> <ACTIVITY VISUAL EDITING NODE ID="116" YCOORD="420" XCOORD="587" /> <ACTIVITY VISUAL EDITING NODE ID="125" YCOORD="320" XCOORD="580" /> <ACTIVITY VISUAL EDITING NODE ID="152" YCOORD="200" XCOORD="160" /> </DF WORKFLOW EDITOR> </DF WORKFLOW>

FIG. 22A

```
<DP QUERY DEF VERSION="1">
  <DPA IDENTIFIERS DATA SET="OAS" WH OWNER NAME="PART"/>
  <HINTS/>
  <COLUMN DEFS>
    <COLUMN DEF SUMMARY TYPE="SUM" COLUMN NAME="PTD BUDGET"</p>
COLUMN ALIAS="PTD BUDGET" COLUMN_SORT_ORDER="3"
COLUMN SORT ATTRIBUTE="NONE" COLUMN TYPE="MEASURE" COLUMN EXPR=""
COLUMN POSITION="3" TABLE ALIAS="INCOME STMT A" COLUMN TAG="PTD BUDGET"/
    <COLUMN DEF SUMMARY TYPE="NONE" COLUMN NAME="LINE NAME"</p>
COLUMN ALIAS="LINE NAME" COLUMN SORT ORDER="1"
COLUMN SORT ATTRIBUTE="ASC" COLUMN TYPE="ATTRIBUTE" COLUMN EXPR=""
COLUMN POSITION="1" TABLE ALIAS="INC STMT LINES D" COLUMN TAG="LINE NAME"/
>
    <COLUMN DEF SUMMARY TYPE="SUM" COLUMN NAME="PTD VARIANCE PCT"</p>
COLUMN ALIAS="PTD VARIANCE PCT" COLUMN SORT ORDER="6"
GOLUMN SORT ATTRIBUTE="NONE" COLUMN TYPE="MEASURE" COLUMN EXPR=""
COLUMN POSITION="6" TABLE ALIAS="INCOME STMT A"
COLUMN_TAG="PTD_VAR_PCT"/>
    <COLUMN DEF SUMMARY TYPE="NONE" COLUMN NAME="DEPARTMENT DESC"</p>
COLUMN ALIAS="DEPT DESC" COLUMN SORT ORDER="2"
COLUMN SORT ATTRIBUTE="ASC" COLUMN TYPE="ATTRIBUTE" COLUMN EXPR=""
COLUMN POSITION="2" TABLE ALIAS="DEPARTMENT D" COLUMN TAG="DEPT DESC"/>
    <COLUMN DEF SUMMARY TYPE="SUM" COLUMN NAME="PTD VARIANCE"</p>
♥OLUMN ALIAS="PTD VARIANCE" COLUMN SORT ORDER="5"
COLUMN SORT ATTRIBUTE="NONE" COLUMN TYPE="MEASURE" COLUMN EXPR=""
COLUMN POSITION="5" TABLE_ALIAS="INCOME_STMT_A" COLUMN TAG="PTD VAR"/>
    <COLUMN DEF SUMMARY TYPE="SUM" COLUMN NAME="PTD ACTUAL"
COLUMN ALIAS="PTD ACTUAL" COLUMN SORT ORDER="4"
COLUMN SORT ATTRIBUTE="NONE" COLUMN TYPE="MEASURE" COLUMN EXPR=""
COLUMN_POSITION="4" TABLE_ALIAS="INCOME STMT A" COLUMN TAG="PTD ACTUAL"/
  </COLUMN DEFS>
```

FIG. 22B

```
<TABLE DEFS>
    <TABLE_DEF TABLE_ALIAS="VENDOR_D" TABLE_NAME="VENDOR_D"/>
    <TABLE_DEF TABLE_ALIAS="AP_INV_DETAIL_F" TABLE_NAME="AP_INV_DETAIL_F"/>
    <TABLE DEF TABLE ALIAS="INCOME STMT A" TABLE NAME="INCOME_STMT_A"/>
    <TABLE_DEF TABLE_ALIAS="DEPARTMENT_D" TABLE_NAME="DEPARTMENT_D"/>
    <TABLE_DEF TABLE_ALIAS="INC_STMT_LINES D"
TABLE_NAME="INC_STMT_LINES_D"/>
  </TABLE DEFS>
  <DETAIL FILTERS>
    <FILTER FILTER_TYPE="VALUE" COLUMN_TEXT="PERIOD_KEY"
TABLE_ALIAS="AP_INV_DETAIL_F" FILTER_PREC_OPER="AND" FILTER_OPERATOR="=">
     <FILTER_VALUE VALUE_DATA_TYPE="STRING">DEC-97</FILTER_VALUE>
    </FILTER>
    <FILTER FILTER_TYPE="VALUE" COLUMN_TEXT="VENDOR_TYPE"
TABLE ALIAS="VENDOR D" FILTER PREC OPER="AND" FILTER OPERATOR="=">
     <FILTER_VALUE VALUE_DATA_TYPE="STRING">EMPLOYEE</FILTER_VALUE>
11
    </FILTER>
<FILTER FILTER TYPE="VALUE" COLUMN_TEXT="COMPANY_KEY"
TABLE_ALIAS="AP_INV_DETAIL_F" FILTER_PREC_OPER="AND" FILTER_OPERATOR="=">
     <FILTER VALUE VALUE_DATA_TYPE="STRING">01</FILTER_VALUE>
    </FILTER>
    <FILTER FILTER TYPE="VALUE" COLUMN TEXT="DEPARTMENT KEY"</pre>
TABLE_ALIAS="AP_INV_DETAIL_F" FILTER_PREC_OPER="AND" FILTER_OPERATOR="=">
     <FILTER_VALUE VALUE_DATA_TYPE="STRING">560</FILTER_VALUE>
    </FILTER>
 <AGGREGATE FILTERS>
    <FILTER FILTER TYPE="VALUE" COLUMN TEXT="SUM(INVOICE LINE AMOUNT)"
TABLE ALIAS="AP INV_DETAIL_F" FILTER_PREC_OPER="AND"
FILTER_OPERATOR=">">
      <FILTER_VALUE VALUE_DATA_TYPE="NUMBER">0</FILTER_VALUE>
    </FILTER>
   </AGGREGATE FILTERS>
  </DP_QUERY_DEF>
```

FIG. 23A

```
- < DP SCHEMA DOC VERSION="1">
<DPA QUERY SERVER INFO SERVICE="DPA_QUERY_SERVER" MACHINE="EXH_2K"</pre>
PORT="8069" WAREHOUSE SERVER="HD.DPAPPLICATIONS.COM"
WAREHOUSE DBNAME="DEMO30" WAREHOUSE OWNER="RROC"
SCHEMA="AP INV DETAIL_F" DATA_SET="NW">FOODADDY</
DPA QUERY SERVER INFO>
- <DP DIMENSIONS>
- <DIMENSION LABEL="ACCOUNTING DATE" NAME="ACCOUNTING_DATE D">
<a tribute label="Accounting date key" name="accounting date key" />
 <ATTRIBUTE LABEL="ACCOUNTING MONTH" NAME="ACCOUNTING MONTH" />
 <a tribute label="Accounting Period" Name="Accounting Period" />
 <attribute label="accounting period key"
NAME="ACCOUNTING PERIOD KEY" />

←ATTRIBUTE LABEL="ACCOUNTING PERIOD QUARTER"

NAME="ACCOUNTING PERIOD QUARTER" />
 ATTRIBUTE LABEL="ACCOUNTING QUARTER" NAME="ACCOUNTING QUARTER" />
 ATTRIBUTE LABEL="ACCOUNTING WEEK ENDING"
NAME="ACCOUNTING WEEK ENDING" />
 ATTRIBUTE LABEL="ACCOUNTING YEAR" NAME="ACCOUNTING_YEAR" />
 </DIMENSION>
--- DIMENSION LABEL="ACCOUNT" NAME="ACCOUNT D">
 SATTRIBUTE LABEL="ACCOUNT" NAME="ACCOUNT" />
 EATTRIBUTE LABEL="LINE NAME" NAME="LINE NAME" />
 ATTRIBUTE LABEL="LINE SEQUENCE KEY" NAME="LINE SEQUENCE KEY" />
 SATTRIBUTE LABEL="REPORT SECTION" NAME="REPORT SECTION" />
 SATTRIBUTE LABEL="REPORT SEQUENCE" NAME="REPORT SEQUENCE" />
 <a href="ACCOUNT KEY" NAME="ACCOUNT KEY" />
 <ATTRIBUTE LABEL="ACCOUNT DESCRIPTION" NAME="ACCOUNT DESC" />
 </DIMENSION>
- <DIMENSION LABEL="ACCOUNT ROLLUPS" NAME="ACCOUNT RLUP D">
 <attribute label="account" name="account" />
 <a tribute label="Account Key" name="account Key" />
 <a href="ACCOUNT ROLLUP DESCRIPTION" NAME="ROLLUP DESC" />
 <a tribute label="account rollup code" name="rollup code" />
 <a tribute label="account description" name="account desc" />
 </DIMENSION>
- <DIMENSION LABEL="AP HOLD CODES" NAME="AP HOLD CODE D">
 <a tribute label="ap hold code" name="ap_hold_code" />
 <a href="AP"><ATTRIBUTE LABEL="AP HOLD CODE DESCRIPTION" NAME="AP_HOLD_CODE_DESC"</a>
 <a tribute label="AP HOLD CODE KEY" NAME="AP HOLD CODE KEY" />
 <ATTRIBUTE LABEL="AP HOLD CODE TYPE" NAME="AP HOLD CODE TYPE" />
 </DIMENSION>
```

FIG. 23B

```
- <DIMENSION LABEL="AP HOLD STATUS" NAME="AP HOLD STATUS D">
    <a href="AP HOLD STATUS" NAME="AP HOLD STATUS" />
    <a href="AP HOLD STATUS KEY" NAME="AP HOLD STATUS KEY" />
    </DIMENSION>
- <DIMENSION LABEL="AP INVOICES" NAME="AP INVOICE D">
    <ATTRIBUTE LABEL="AP INVOICE NUMBER" NAME="AP INVOICE" />
    <ATTRIBUTE LABEL="AP INVOICE DATE" NAME="AP INVOICE DATE" />
    <a href="AP"><a hr
    </DIMENSION>
- <DIMENSION LABEL="AP INVOICE TYPES" NAME="AP INVOICE TYPE D">
    <ATTRIBUTE LABEL="AP INVOICE TYPE" NAME="AP INVOICE TYPE" />
    <ATTRIBUTE LABEL="AP INVOICE TYPE KEY" NAME="AP INVOICE TYPE KEY" />
    </DIMENSION>
- - DIMENSION LABEL="AP PAYMENT TERMS" NAME="AP_PAYMENT_TERM_D">
    SATTRIBUTE LABEL="AP PAYMENT TERM" NAME="AP PAYMENT TERM" />
   SATTRIBUTE LABEL="AP PAYMENT TERM DESCRIPTION"
NAME="AP_PAYMENT TERM DESC" />
    ATTRIBUTE LABEL="AP PAYMENT TERM KEY" NAME="AP_PAYMENT_TERM_KEY" />
    </DIMENSION>
- DIMENSION LABEL="PO AUTHORIZER" NAME="AUTHORIZER D">
   ATTRIBUTE LABEL="AUTHORIZER" NAME="AUTHORIZER" />
   SATTRIBUTE LABEL="AUTHORIZER KEY" NAME="AUTHORIZER KEY" />
   DIMENSION>
-☑DIMENSION LABEL="BUYERS" NAME="BUYER D">
   SATTRIBUTE LABEL="BUYER" NAME="BUYER" />
   ATTRIBUTE LABEL="AUTHORIZATION LIMIT" NAME="BUYER_AUTHORIZATION_LIMIT"
    <ATTRIBUTE LABEL="END DATE ACTIVE" NAME="BUYER END DATE ACTIVE" />
    <a href="buyer"><a href="buyer
    <a href="make-"buyer_start_date_active" />
    </DIMENSION>
- <DIMENSION LABEL="COMPANY" NAME="COMPANY D">
    <ATTRIBUTE LABEL="COMPANY" NAME="COMPANY" />
    <ATTRIBUTE LABEL="COMPANY DESCRIPTION" NAME="COMPANY DESC" />
   <a href="company"><a href="com
    </DIMENSION>
- <DIMENSION LABEL="CURRENCY" NAME="CURRENCY D">
    <ATTRIBUTE LABEL="CURRENCY" NAME="CURRENCY" />
    <ATTRIBUTE LABEL="CURRENCY DESCRIPTION" NAME="CURRENCY DESC" />
    <ATTRIBUTE LABEL="CURRENCY KEY" NAME="CURRENCY KEY" />
   </DIMENSION>
```

FIG. 23C

</DIMENSION>

```
- <DIMENSION LABEL="DEPARTMENT" NAME="DEPARTMENT_D">
 <attribute label="department" name="department" />
 <a href="https://www.equality.com/arthub.edu/">
 <ATTRIBUTE LABEL="DEPARTMENT DESCRIPTION" NAME="DEPARTMENT DESC" />
  </DIMENSION>
- <DIMENSION LABEL="DEPARTMENT ROLLUPS" NAME="DEPARTMENT_RLUP_D">
 <attribute label="department" name="department" />
  <ATTRIBUTE LABEL="DEPARTMENT ROLLUP DESC" NAME="ROLLUP DESC" />
  <ATTRIBUTE LABEL="DEPARTMENT ROLLUP CODE" NAME="ROLLUP_CODE" />
  <ATTRIBUTE LABEL="DEPARTMENT DESCRIPTION" NAME="DEPARTMENT DESC" />
  <a href="https://www.enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.com/enumous.c
  </DIMENSION>
- <DIMENSION LABEL="AP DUE DATES" NAME="DUE_DATE_D">
 ATTRIBUTE LABEL="DUE DATE KEY" NAME="DUE DATE KEY" />
  SATTRIBUTE LABEL="DUE MONTH" NAME="DUE MONTH" />
  EATTRIBUTE LABEL="DUE PERIOD" NAME="DUE PERIOD" />
  ATTRIBUTE LABEL="DUE PERIOD KEY" NAME="DUE PERIOD KEY" />
  ATTRIBUTE LABEL="DUE PERIOD QUARTER" NAME="DUE_PERIOD_QUARTER" />
  SATTRIBUTE LABEL="DUE QUARTER" NAME="DUE QUARTER" />
  ATTRIBUTE LABEL="DUE WEEK ENDING" NAME="DUE_WEEK_ENDING" />
  ATTRIBUTE LABEL="DUE YEAR" NAME="DUE_YEAR" />
  ™/DIMENSION>
 - DIMENSION LABEL="INVOICE DATES" NAME="INVOICE_DATE_D">
  ATTRIBUTE LABEL="INVOICE DATE KEY" NAME="INVOICE DATE KEY" />
  ATTRIBUTE LABEL="INVOICE MONTH" NAME="INVOICE_MONTH" />
  ATTRIBUTE LABEL="INVOICE PERIOD" NAME="INVOICE_PERIOD" />
   <ATTRIBUTE LABEL="INVOICE PERIOD KEY" NAME="INVOICE PERIOD KEY" />
   <attribute label="invoice period quarter"
 NAME="INVOICE PERIOD QUARTER" />
   <attribute label="invoice quarter" name="invoice_quarter" />
   <ATTRIBUTE LABEL="INVOICE WEEK ENDING" NAME="INVOICE_WEEK_ENDING" />
   <a tribute label="Invoice Year" name="Invoice_Year" />
   </DIMENSION>
 - <DIMENSION LABEL="JE BATCHS" NAME="JE_BATCH D">
   <attribute label="actual flag" name="actual flag" />
   <a href="https://www.name-"default_period_name"/>
   <attribute label="je batch key" name="je_batch_key" />
   <attribute label="name" name="name" />
   <attribute label="org id" name="org id" />
   <attribute label="description" name="description" />
   <attribute label="date created" name="date_created" />
```

FIG. 23D

```
- < DIMENSION LABEL="ORGANIZATIONS" NAME="ORGANIZATION D">
<a tribute label="organization" name="organization" />
<a tribute label="organization key" name="organization key" />
<a tribute label="organization type" name="organization_type" />
</DIMENSION>
- < DIMENSION LABEL="PA PROJECTS" NAME="PA PROJECT D">
<a tribute label="project key" name="pa project key" />
 <attribute Label="Project complete date"
NAME="PROJECT COMPLETE DATE" />
 <attribute label="project manager" name="project manager" />
 <attribute label="project name" name="project name" />
 <attribute label="project number" name="project number" />
 <attribute label="project officer" name="project officer" />
ATTRIBUTE LABEL="PROJECT SPONSOR" NAME="PROJECT SPONSOR" />
SATTRIBUTE LABEL="PROJECT START DATE" NAME="PROJECT START DATE" />
ATTRIBUTE LABEL="PROJECT STATUS" NAME="PROJECT STATUS" />
 ATTRIBUTE LABEL="PROJECT TITLE" NAME="PROJECT TITLE" />
 ATTRIBUTE LABEL="PROJECT TYPE" NAME="PROJECT TYPE" />
 </DIMENSION>
 ZDIMENSION LABEL="PA TASKS" NAME="PA TASK D">
 <ATTRIBUTE LABEL="PARENT TASK KEY" NAME="PARENT TASK KEY" />
 SATTRIBUTE LABEL="TASK LOCATION" NAME="TASK_LOCATION" />
 SATTRIBUTE LABEL="TASK NAME" NAME="TASK NAME" />
 ATTRIBUTE LABEL="TASK MANAGER" NAME="TASK MANAGER" />
 ATTRIBUTE LABEL="TOP TASK NAME" NAME="TOP TASK NAME" />
 ATTRIBUTE LABEL="TOP TASK KEY" NAME="TOP TASK KEY" />
 <ATTRIBUTE LABEL="TASK WBS" NAME="TASK WBS" />
 <a tribute label="task start date" name="task start date" />
 <a tribute label="task number" name="task number" />
 <a tribute label="task description" name="task desc" />
 <a tribute label="parent task name" name="parent task name" />
 <attribute label="project key" name="pa project_key" />
 <a tribute label="task complete date" name="task complete date" />
 <attribute label="task key" name="pa_task_key" />
 </DIMENSION>
```

FIG. 23E

```
- <DIMENSION LABEL="PERIODS" NAME="PERIOD D">
      <ATTRIBUTE LABEL="PERIOD" NAME="PERIOD" />
      <a triangle <a tri
      <ATTRIBUTE LABEL="PERIOD START DATE" NAME="PERIOD START DATE" />
      <a tribute label="period type" name="period type" />
      <attribute label="Quarter" Name="Quarter" />
      <attribute label="Year" name="Year" />
      </DIMENSION>
 - <DIMENSION LABEL="PRODUCT" NAME="PRODUCT D">
      <attribute label="product" name="product" />
      <ATTRIBUTE LABEL="PRODUCT DESCRIPTION" NAME="PRODUCT DESC" />
      <a tribute label="product key" name="product key" />

★/DIMENSION>

 - <■DIMENSION LABEL="PA PROJECT CLASSES" NAME="PROJECT CLASS D">
     ATTRIBUTE LABEL="PROJECT CLASS CATEGORY"
 NAME="PROJECT CLASS CATEGORY" />
      *ATTRIBUTE LABEL="PROJECT CLASS CODE" NAME="PROJECT CLASS CODE" />
       <ATTRIBUTE LABEL="PROJECT CLASS DESCRIPTION"</p>
 NAME="PROJECT CLASS DESCRIPTION" />
    ATTRIBUTE LABEL="PROJECT KEY" NAME="PROJECT KEY" />
    S/DIMENSION>
 - DIMENSION LABEL="PO REQUESTORS" NAME="REQUESTOR D">
    ATTRIBUTE LABEL="REQUESTOR" NAME="REQUESTOR" />
    SATTRIBUTE LABEL="REQUESTOR KEY" NAME="REQUESTOR KEY" />
     </DIMENSION>
 - < DIMENSION LABEL="SUB-ACCOUNT" NAME="SUB ACCOUNT D">
      <a href="ATTRIBUTE LABEL="SUB-ACCOUNT" NAME="SUB ACCOUNT" />
      <ATTRIBUTE LABEL="SUB-ACCOUNT KEY" NAME="SUB_ACCOUNT_KEY" />
      <ATTRIBUTE LABEL="SUB-ACCOUNT DESCRIPTION" NAME="SUB ACCOUNT DESC" />
      </DIMENSION>
 - <DIMENSION LABEL="AP VENDORS" NAME="VENDOR D">
      <a href="ACTIVE"><a href="ACTIVE">ACTIVE<a href="ACTIVE"><a href="ACTIVE">ACTIVE<a href="ACTIVE"><a href="ACTIVE">ACTIVE<a href="ACTIVE">ACTIVE<a href="ACTIVE">ACTIVE<a href="ACTIVE">ACTIVE<a href="ACTIVE">ACTIVE<a href="ACTIVE
      <a triver | <a tri
      <a href="ACTIVE START DATE" NAME="ACTIVE START DATE" />
      <ATTRIBUTE LABEL="VENDOR SITE ADDRESS LINE1" NAME="ADDRESS LINE1" />
      <ATTRIBUTE LABEL="VENDOR SITE ADDRESS LINE2" NAME="ADDRESS LINE2" />
      <ATTRIBUTE LABEL="VENDOR SITE ADDRESS LINE3" NAME="ADDRESS LINE3" />
      <a href="ATTRIBUTE LABEL="VENDOR SITE AREA CODE" NAME="AREA CODE" />
      <a triangle <a><a triangle <a triangle <a><a triangle <a triangle <a><a triangle <a><a triangle <a><a triangle <a triangle <a><a triangle <a triangle <a><a triangle <a triangle <a><a triangle <a triangle <a triangle <a triangle <a triangle <a><a triangle <a triangle <a><a triangle <a triangle 
      <a href="<a href="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.name="https://www.
      <ATTRIBUTE LABEL="VENDOR SITE PHONE NUMBER" NAME="PHONE NUMBER" />
```

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FIG. 23F

```
<a triple><attribute label="vendor site province" name="province" />
<ATTRIBUTE LABEL="VENDOR SITE STATE" NAME="STATE" />
<a tribute label="Vendor Tax Federal Flag"
NAME="TAX FEDERAL REPORT FLAG" />
 <a triple><attribute label="vendor tax reporting name"</a>
NAME="TAX REPORTING NAME" />
 <attribute label="vendor tax state flag" name="tax_state_report_flag"
/>
<ATTRIBUTE LABEL="VENDOR 1099 NUMBER" NAME="VENDOR 1099 NUM" />
<ATTRIBUTE LABEL="VENDOR 1099 TYPE" NAME="VENDOR 1099 TYPE" />
 <attribute label="Vendor corporate group"
NAME="VENDOR CORPORATE GROUP" />
 <attribute label="VENDOR INDUSTRY CLASS"
NAME="VENDOR INDUSTRY CLASS" />
 SATTRIBUTE LABEL="VENDOR KEY" NAME="VENDOR KEY" />
 ATTRIBUTE LABEL="VENDOR NAME" NAME="VENDOR NAME" />
 ATTRIBUTE LABEL="VENDOR NUMBER" NAME="VENDOR NUMBER" />
 ATTRIBUTE LABEL="VENDOR ORGANIZATION TYPE" NAME="VENDOR ORG TYPE" />
 SATTRIBUTE LABEL="VENDOR PAYMENT PRIORITY"
NAME="VENDOR PAYMENT PRIORITY" />
**ATTRIBUTE LABEL="VENDOR PAY GROUP" NAME="VENDOR PAY GROUP" />
ZATTRIBUTE LABEL="VENDOR SITE CODE" NAME="VENDOR_SITE_CODE" />
 ATTRIBUTE LABEL="VENDOR SITE KEY" NAME="VENDOR SITE KEY" />
 ATTRIBUTE LABEL="VENDOR TYPE" NAME="VENDOR TYPE" />
 SATTRIBUTE LABEL="VENDOR SITE ZIP" NAME="ZIP" />
 </DIMENSION>
-"<DIMENSION LABEL="AP INVOICE DETAILS" NAME="AP INV DETAIL F">
 <ATTRIBUTE LABEL="ACCOUNTING DATE" NAME="ACCOUNTING DATE" />
 <ATTRIBUTE LABEL="ACCOUNTING DATE KEY" NAME="ACCOUNTING DATE KEY" />
 <ATTRIBUTE LABEL="ACCOUNT KEY" NAME="ACCOUNT KEY" />
 <ATTRIBUTE LABEL="APPROVAL STATUS" NAME="APPROVAL STATUS" />
 <a tribute label="AP INVOICE KEY" NAME="AP INVOICE KEY" />
 <ATTRIBUTE LABEL="AP INVOICE TYPE KEY" NAME="AP INVOICE_TYPE_KEY" />
 <ATTRIBUTE LABEL="AP PAYMENT TERM KEY" NAME="AP PAYMENT TERM KEY" />
 <a tribute label="buyer key" name="buyer key" />
 <a tribute label="company key" name="company key" />
 <a tribute label="Invoice currency code" name="currency key" />
 <a tribute label="Department Key" name="Department Key" />
 <a href="ATTRIBUTE LABEL="DUE DATE" NAME="DUE DATE" />
 <a href="ATTRIBUTE LABEL="DUE DATE KEY" NAME="DUE DATE KEY" />
 <a tribute label="total invoice amount" name="invoice_amount" />
```

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FIG. 23G

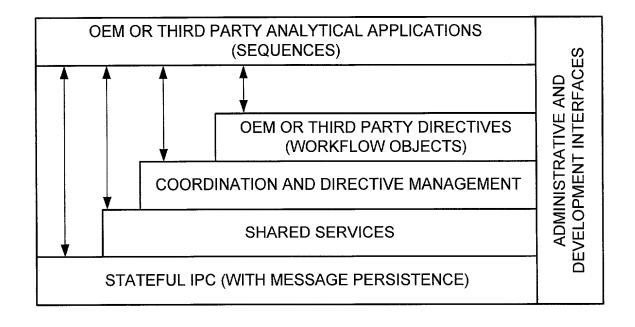
</DP SCHEMA DOC>

<ATTRIBUTE LABEL="INVOICE DATE" NAME="INVOICE DATE" /> <ATTRIBUTE LABEL="INVOICE DATE KEY" NAME="INVOICE DATE KEY" /> <a tribute label="invoice id key" name="invoice id key" /> <ATTRIBUTE LABEL="INVOICE LINE DESCRIPTION" NAME="INVOICE LINE DESC" /> <a tribute label="invoice line type" name="invoice line type" /> <ATTRIBUTE LABEL="INVOICE TAX AMOUNT" NAME="INVOICE TAX AMOUNT" /> <a tribute label="organization key" name="organization_key" /> <attribute label="paid amount" name="paid amount" /> <attribute label="pa project key" name="pa project key" /> <attribute label="pa task key" name="pa task key" /> ≤ATTRIBUTE LABEL="PERIOD KEY" NAME="PERIOD KEY" /> ATTRIBUTE LABEL="POSTED FLAG" NAME="POSTED FLAG" /> SATTRIBUTE LABEL="PO CREATION DATE" NAME="PO CREATED DATE" /> SATTRIBUTE LABEL="PO NUMBER" NAME="PO NUMBER" /> **EATTRIBUTE LABEL="PRODUCT KEY" NAME="PRODUCT KEY" />** ATTRIBUTE LABEL="RECURRING INVOICE FLAG" NAME="RECURRING_INVOICE_FLAG" / ATTRIBUTE LABEL="SUB-ACCOUNT KEY" NAME="SUB ACCOUNT KEY" /> ≪ATTRIBUTE LABEL="TRANSLATED CURRENCY CODE" NAME="TRANSLATED CURRENCY CODE" /> SATTRIBUTE LABEL="VENDOR KEY" NAME="VENDOR KEY" /> /DIMENSION> √DP DIMENSIONS> - MEASURES LABEL="AP INVOICE DETAILS" NAME="AP INV_DETAIL_F"> <MEASURE LABEL="ACCOUNTING (PRE-AP) LAG DAYS"</p> NAME="ACCOUNTING LAG DAYS" /> <MEASURE LABEL="INVOICE LINE AMOUNT" NAME="INVOICE LINE AMOUNT" /> <MEASURE LABEL="INVOICE LINE EXCHANGE RATE VARIANCE"</p> NAME="INVOICE LINE EXCH RATE VAR" /> <MEASURE LABEL="INVOICE LINE PRICE VARIANCE"</p> NAME="INVOICE LINE PRICE VARIANCE" /> <MEASURE LABEL="NUMBER OF INVOICE LINES" NAME="NUMBER_INVOICE_LINES" /> <MEASURE LABEL="TRANSLATED CURRENCY AMOUNT"</p> NAME="TRANSLATED CURRENCY AMOUNT" /> <MEASURE LABEL="UNPAID AMOUNT" NAME="UNPAID AMOUNT" /> </MEASURES>

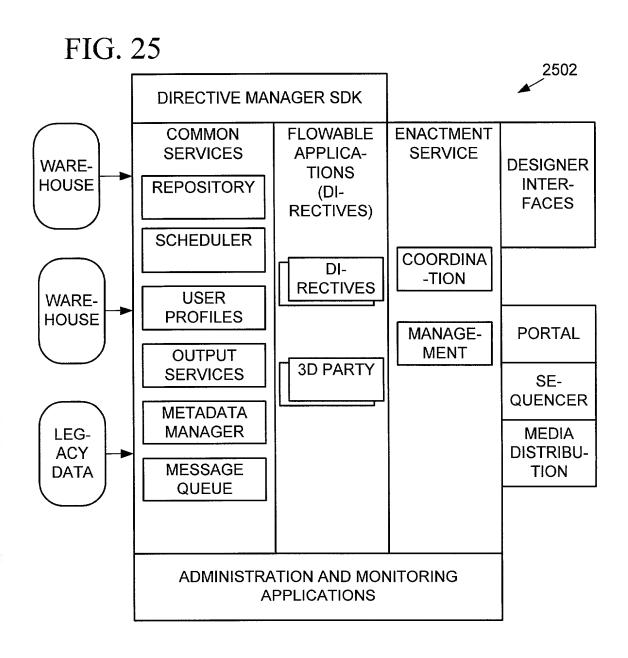
ASSESSES ASSESSES

FIG. 24









Gregory L. Maurer, Esq., Klarquist Sparkman, LLP, 121 S.W. Salmon Street, Suite 1600, Portland, Oregon 97204, (503) 226-7391, Inventors: Scheurich et al., Title: SYSTEMS AND METHODS FOR DEFINING EXECUTABLE SEQUENCES TO PROCESS INFORMATION FROM A DATA COLLECTION, Express Mail No.: EL754021250US, Attorney Docket No.: 6115-60713, Page 103 of 103

FIG. 26

